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China, Manchuria, Japan, Indo-China, Siam, Straits Settlements, Malay States, Burma, India, Malaysia, and the Philippines

THE FAR EASTERN REVIEW

VOL. VI: No. 4. MANILA, SHANGHAI AND YOKOHAMA, SEPTEMBER, 1909. 25 cents U. S. Currency 50 " Philippine Cy.

THE IMPERIAL NAVY OF CHINA



His Excellency Admiral SA CHEN-PING (C. P. SAH)
HEAD OF THE NEWLY CREATED ADMIRALTY BOARD

The difficult task of reorganizing the Imperial Chinese Navy will fall on his shoulders. His past experience and undoubted ability fully qualify him for the work, and the appointment reflects great credit on the Regent's Judgment.

(From a photograph taken at Amoy, November, 1908, on the occasion of the American Battleships' visit to that port.)

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THE FAR EASTERN REVIEW

SEPTEMBER, NINETEEN HUNDRED AND NINE



His Imperial Highness, Prince TSAI HSUN

HEAD OF THE IMPERIAL CHINESE NAVY

Brother of the Late Emperor KUANG HSU and of Prince C'HUN, The Resent

From a recent Photograph for exclusive publication in The Far Eastern Review

THE FAR EASTERN REVIEW

COMMERCE • ENGINEERING • FINANCE

VOL. VI. MANILA, P. I., SHANGHAI, AND YOKOHAMA, SEPTEMBER, 1909 No. 4

PARABOLIC ARCH BRIDGE IN ALBAY

Among the most important structures completed by the Bureau of Public Works in the Philippine Islands is the parabolic arch bridge over the Banao River in the Mayon watershed which was opened to traffic last March and for-

old retaining walls of the approaches. The total outlay for bridge, sidewalk and balustrades amounted to approximately ₱55,000.

The work was directly under the supervision of Mr. Oliver D. Filley, Supervising Engineer,

apparent, and as a permanent structure it is a monument to governmental enterprise. Its graceful lines add to its desirable qualities as a part of the landscape.

This structure is typical of the class of con-



• PARABOLIC ARCH BRIDGE LEGASPI-LIGAO ROAD, ALBAY, REINFORCED CONCRETE, KNOWN AS THE GOVERNOR REYNOLD'S BRIDGE

mally opened in May. This bridge replaced the old Spanish bridge which was destroyed by an earthquake and had not been reconstructed for years. It is on the Legaspi-Ligao road, one of the most important thoroughfares in the Albay hemp district. Previous to this construction there was a ford at this point, and on account of the tremendous volume of water, it was impassable during the rainy season. As hundreds of bulcarts pass over this road daily, the long delays waiting for freshets to subside, caused great inconvenience and made transportation cost almost prohibitive during this season.

The bridge is located almost west of the famous volcano of Mayon, and is known as the Governor Reynold's Bridge in honor of the American governor of Albay province of that name, who took great interest in improving the roads of the province and increasing facilities of transportation.

The bridge may be designated as a Reinforced Concrete Two Span Parabolic Arch Bridge. It has two spans of 83 feet each with a rise of 25 feet. The width of arch ring is 20 feet and the roadway 18 feet wide clear of the curbs. The roadway is carried on reinforced concrete secondary arches supported by the main arch rings and at the ends by retaining walls. The length of the bridge proper is 240 feet and the total length including approaches, 1,262 feet. The height of roadway from the bed of the river is approximately 40 feet. In view of the fate of the old Spanish structure, the new bridge was constructed along lines designed to give it maximum protection against damage from earthquakes.

Besides the bridge proper a sidewalk and reinforced balustrades were constructed on the

Bureau of Public Works.

Some idea of the amount of material required in the construction may be gathered from the fact that 2,500 barrels of Green Island Cement were used.

struction in bridges that the Bureau of Public Works is carrying out all over the islands. During the fiscal year ended June 30th, 1909, permanent steel and reinforced concrete bridges were designed to the value of ₱1,500,000 and



ANOTHER VIEW OF THE GOVERNOR REYNOLD'S BRIDGE.—2500 BARRELS OF GREEN ISLAND CEMENT USED IN CONSTRUCTION

The illustrations herewith give comprehensive idea of the bridge and its design. Its adaptation to a section where tremendous volume of water rushes down from the mountain every rain is

of this work over ₱1,000,000 represented the amount spent on completed work. The balance is either in course of construction or awaiting adjustment of appropriations.

THE FAR EASTERN REVIEW

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THE NEW AMERICAN MINISTER TO PEKING

The appointment of Mr. Charles R. Crane, of Chicago, to represent the United States at Peking has met generally with approval, not only by the commercial and financial interests throughout the United States, but by that large body of Americans who are in sympathy with President Taft's policy with regard to China and her future. Of this appointment the *Journal of the American Asiatic Association* says:

"The appointment of Mr. Charles R. Crane, of Chicago, as Minister to China meets the unqualified approval of all who know him, and has the obvious merit of being dictated by an honest desire to find the man best fitted to meet the requirements of a trying position. It is evident that neither personal influence nor political pressure had anything to do with Mr. Crane's selection, and the sacrifices which the acceptance of the mission must entail on a man identified with business interests so important as those which Mr. Crane represents are sufficient evidence of his possession of a high sense of public duty. Mr. Crane not only knows China, but he has traveled extensively in central Asia, and has an unusually wide acquaintance with the empire of Russia. At a time when the President of the United States is a man specially impressed with the importance of closer relations between the two countries, and when all the influence of the Administration is being thrown on the side of enlarging the financial and commercial interests of our people in China, it is eminently fitting that the new Minister should be a man of business training and experience, as well as one in thorough sympathy with the Chinese policy of the President. Mr. Crane's public utterances since his appointment indicate that he is fully impressed with the magnitude of the opportunity which offers for the extension of American influence in China, and that he is not unfamiliar with the character of the difficulties which he is likely to encounter in making that influence felt."

When it is remembered that President Taft took five months to search out the man for this post, some idea may be gathered of the publicity and interest with which the appointment was awaited. Usually the public is not taken into the confidence of the appointing power until after an appointment is decided upon, but in this case, President Taft made no secret of his desire to find some thoroughly equipped American who would prove adequate to the task of confirming America's policy towards China, and in furthering America's interests in the Empire. That President Taft has succeeded in making a selection that is heartily endorsed may be inferred from the generous editorial approval that followed the announcement of Mr. Crane's appointment.

Mr. Charles R. Crane is not unknown in the Far East and, indeed, his familiarity with Far Eastern conditions and especially with China had much to do with the President's choice. Of his career little has been published that gives an adequate idea of the man, but as the *Exporters' and Importers' Journal* puts it, "Mr. Crane is in no sense a diplomatist, according to the usual significance of the word; nor is he a professed politician. He is simply a clear headed man of business, who has seen a great deal of the world and has absorbed the wisdom that such a career is calculated to inspire."

This about sizes up the man who has been chosen for the most important post in the gift of the administration and one we feel certain he will fill with great credit. Referring further to Mr. Crane's career the *Journal* says:

"He is one of the few men born to the enjoyment of wealth, who is a self made man in every sense of the phrase. He is the son of Richard T. Crane, Sr., who is vigorously opposed to the modern systems of education. He was reared with the idea that a college education is by no means essential to the success in life of a man who has a brain of his own and is disposed to use it. His school days ended when he was graduated from the public schools, and what learning he has gathered since then has been drawn from the books he has read, and they are upusually many, and from his

travels through the world and the observations he has made of humanity and its struggles.

"From the public schools Mr. Crane stepped into his father's workshop and started his career at the work bench, instead of spending four years at college and winning a degree. He learned the business of the Crane Company from the top to bottom upward, serving in various capacities, from the turning of the lathe to the stool of the book-keeper. His progress in the mastery of the details of the business was rapid. He had a brain and justified, to an extent, the theory of his father by using it."

The result of his thoroughness in mastering the business was his election to the office of first vice-president of the company in 1894, and the charge of the foreign trade in plumbing supplies, tubing, pipe and elevators manufactured by the company. "To Charles R. Crane is due largely the reputation which the company has attained in the foreign markets. His management was skillful, tactful, and shrewd," says the *Journal*.

"It was in this capacity that Mr. Crane became a great traveler, a linguist, a connoisseur in paintings, a book collector, and a devoted student.

"Early in the course of his business affairs, he went to Russia where the Crane Company has extensive interests. He went into all the provinces of the country, met officials and peasants and made a close study of life in the realms of the Tsar. He was well received at the Russian court and soon became a recognized authority on Russian affairs, both political and social. When he was not in Russia or Chicago, he was off ranging the globe elsewhere. Continual travel, keen power of observation, and continuous study soon developed in him a deep knowledge of men and affairs.

"During his travels abroad Mr. Crane spent a great deal of time in China, his business interests taking him into practically every province of the Empire. He came in close contact with all classes of Mongolians, and in his Michigan Avenue home, Chicago, is a large collection of Chinese curios.

"In all his knocking about he was absorbing the language of the nations he visited. In his home are books written in a dozen different languages, all of which he can read without the use of a lexicon. It is said that he can read without difficulty twelve different languages, and speak with ease and fluency six or eight of them.

"Mr. Crane's qualifications for the post are really extraordinary, and considering the awakening of China to the necessity of joining the modern army of progress, the United States could have found no other man similarly well equipped to render the service which she shall require from her minister to that country. Ever since early manhood he has been intensely interested in Asia, its people, and its institutions and he has a familiarity with them which is rare, indeed, for an American. He is not only familiar with the social and political conditions of the Far East, but he has a practical knowledge of the commercial conditions which will be of value in furthering trade between the two countries. These qualifications, coupled with his high personal character and his sincere devotion to the public welfare, make him an ideal man for what is probably not only the most important diplomatic position to be filled by President Taft, but also the most difficult to fill properly.

"Western businessmen and manufacturers are enthusiastic over the choice the President has made. They believe this is a critical time in the business comity between China and the United States, and they feel that Mr. Crane is just the sort of man needed. They are particularly hopeful that he will pave the way for the Panama canal to mean everything that it should mean as a commercial highway and short cut from American factories and farms to the Chinese market."

We learn that politics had nothing to do with Mr. Crane's appointment. In politics Mr. Crane is a "Cleveland Democrat" and belongs to the Iroquois Club, a strong Democratic organization. He is also president of the Municipal Voter's League that stands for clean politics and a high plane of citizenship, and is not identified with professional politics.

Thus the new American minister to Peking is a high type of American who stands for the best in American institutions. He goes to Peking untrammelled and has no object but to serve his country faithfully and advance her interests.

The choice of the REVIEW for this post to succeed Minister Rockhill was Mr. Charles Denby, formerly Consul General at Shanghai, as we believe such a promotion would have met with general approval of all interests in the Far East and at the same time made for reward of long and faithful service. President Taft, however, decided on a different course, and while Mr. Denby did not receive the recognition we believe he deserved, Mr. Crane may rest assured he will be loyally supported by all who have the best interests of America in the Far East at heart.

CHINESE RAILWAY LOANS AND AGREEMENTS

For a time the European and American press devoted much space to a discussion of the Hankow-Szechuan railway loan and, particularly, the participation of a group of American capitalists. Then we were entertained with much comment on the differences between Japan and China over the reconstruction of the Antung-Mukden Railway. Now it would appear that everything has been arranged to the satisfaction of all parties interested. The Hankow-Szechuan loan has been increased to £6,000,000 and the British, American, French and German groups participate for equal portions. The agreement between China and Japan in regard to the reconstruction of the Antung-Mukden railway has been signed and all diplomatic difficulties between the two countries amicably arranged.

Commenting on the result of the negotiations in regard to the Hankow-Szechuan Railway Loan, the *London and China Express* says:

"That the dispute has been settled is satisfactory. No one contested the right of United States financiers to participate in the Hankow-Szechuan Line. What did not present itself as wholly acceptable was the method and time adopted to enforce the claim, after having allowed it to remain apparently dead for so long. It was thought, and not unnaturally, that the arrangements which had been come to with the Chinese Government should be allowed to stand, and that American participation, which would be welcome from political and financial standpoints, should take its share in any future operations. This view was felt all the more when it became so decidedly apparent that the financial group had been stirred up into action by President Taft and the Secretary of State. Little official news has come through from Peking, but it was understood generally that the definite settlement of the loan question after the many vicissitudes it has experienced in the last six months might be reached on the lines that the American group received a one-fourth participation. It is doubtless this principle of participation which has been decided in Peking whither negotiations were transferred after the inconclusive conferences of the financial groups in London, Paris, and Berlin. The remaining matters, such as the time and form of issue, will be considered in Europe by the financial groups interested, namely, the British and Chinese Corporation, the Hongkong and Shanghai Bank, Messrs. J. P. Morgan and Sons, the Banque de l'Indo-Chine, and the Deutsch-Asiatische Bank. Anyway, the principle has been settled and the preliminary agreement has been signed with the Chinese Government. Details will now have to be concluded. The rate of interest remains at 5 per cent., and it is believed the price of the loan to China will be the same as when the loan for £5,500,000 signed before, by the three European groups, was negotiated. These details will naturally take some little time, and no period can yet be stated for the issue of the loan, but it will probably make its appearance to the public in about a month's time. In America the settlement reached has been hailed as a triumph of diplomacy. The State Department looks on it as a principle gained, and not merely

as a question of a comparatively small amount of money. It is considered as a notice to China as well as Europe that the United States intends to demand and obtain its full share of the industrial and commercial development of the Middle Kingdom. Unfortunately its purport is missed by many American papers who seem out to bulldoze those whom it thought were likely to thwart it, but who, as a matter of fact, were ready to cordially admit the principle. It was the method, as we have said, that presented elements of objection, not the main fact itself. That the co-operation of the United States in such questions was desirable, politically and financially, was admitted directly the respective sides met. A section of the American Press has gone far beyond any facts warranted by pointing to the United States as the especial friend of China against Japanese ambitions supported by British diplomacy. The campaign in force is to represent the United States as China's one true friend in the attempt to hold off Japan, while England is pictured as alarmed by the threat to her commercial supremacy in the Celestial Empire from across the Pacific. It is unnecessary to say that Americans who know China will know that such statements are very wide of facts. The larger part of the population knows, however, little of international affairs, and less still of matters in China. The amount of the present loan when divided by four does not bulk large in each part; American enthusiasm will have a chance to manifest its new ardour by its subscriptions to its portion. On broad lines, American participation is to be welcomed, for America stands for the open door in China. As a London daily remarks, it is because the United States stands firmly by this principle, and because Mr. Taft is determined to insist on its observance that Great Britain must view with satisfaction the new activity of American policy in the Far East."

The Mukden-Antung Railway dispute has been settled amicably, and it is believed that the same may be said of the policing of the territory along this railway, which is now the only possible source of difference between the two governments. According to the *Japan Mail* it would seem that China was willing to make any concession provided that her sovereign rights in regard to the Chintao were recognized, and, throughout the negotiations, Japan did not insist on extending Korean sovereignty over this section, but claimed the right to provide protection for Korean subjects. China contended that all the Koreans settled in Chientao had accepted Chinese sovereignty and nationality and were therefore to be treated as Chinese subjects. Chinese sovereignty is for the present recognized and Japan will control Koreans, that venture in future across the border, through its consulates. But Japan has won her battle for the opening of that territory to foreign trade and residence. The compromise on both sides indicates a better feeling between the two countries, and the opening of Chientao to foreign trade, while recognizing China's sovereignty, must receive general approval abroad and be credited to Japan's tact and diplomacy.

Of this the *Japan Mail* feels justified in directing attention to the fact that: "the nations will be compelled to credit Japan's sincerity in the cause of peace. Moreover, just as the Portsmouth Treaty was used by Japan as an instrument for opening Manchuria to the trade world by providing for the establishment of 16 open ports, so also she has seized this occasion to bring Chientao within the sphere of free commerce. Her greatest enemies will be compelled to admit that she has scored a distinct success not only in the matter of diplomacy, but also in the field of international ethics. It is now to be sincerely trusted that a new era of mutual friendship and trust will dawn for the sister Empires."

THE RAVAGES OF WHITE ANT.

The white ant is the enemy of all wood construction in the Far East where it seems to thrive more lustily than in any other part of the world. Not only has it attacked buildings but the rubber

plantations of Malaya have suffered from continued ravages. The report on this subject by Colonel Wyllie, the Burma rubber expert, is of special interest at this time when the prospect for rubber is so bright. The *Times of Ceylon* says:

"Col. Wyllie has just come from the F.M.S., where he has been seeing some of the oldest planted rubber in that country. He takes a very grave view of the ravages of white ants there, and was much surprised at the extent of the damage done by them. The alarming feature of this pest, according to the Colonel, is that it generally confines its attention to the matured trees. The ants work entirely from below getting into the tap root and working up the trunk. In Rangoon, where the white-ant also carries on its depredations, it works on the outside, building up mounds round the foot of the tree. There it is at once seen, and by digging them up and putting in ashes and other materials the tree is saved. In the F. M. S. it is entirely different. It is almost impossible to tell when white ants are at work on a tree until the damage is done and the tree collapses. It was a sad sight to see, in the vicinity of Taiping, magnificent trees, some as many as twenty years old, absolutely destroyed in this manner. Lieut.-Col. Wyllie did not wish to generalize by his own brief observations, but it appeared to him that, unless some effective means of eradicating the pest was discovered, the F. M. S. would always have young rubber, as a large percentage of the old trees were constantly being destroyed by *Termes Gestroi*."

From the Philippines comes information that the white ant has almost destroyed several public buildings, or so damaged them that they are placed in the dangerous column. True the permanent type of construction, in which reinforced concrete is used, is exempt from these ravages but the old Spanish buildings are seriously exposed. Similar reports are being received from the Straits Settlements and other points in the Orient and the losses due to this pest cannot be estimated since it works quietly and when the damage is discovered, it is usually beyond repair.

In many offices it has become necessary to place metal filing cases and other office furniture in order to properly preserve records, but there is every reason to believe that if proper preventive measures are taken, the white ant may be successfully combatted.

The danger to the rubber industry is apparently of a serious character, but we note that the Government of the F. M. S. has taken steps through the Agricultural Department to instruct the planters as to the best means of fighting the pest by a series of lectures on the subject.

INTERPORT CRICKET

Mr. J. W. Bain, sub-editor of the *Shanghai Times*, the well-known journalist and writer on athletics, is the author of an interesting review of Interport Cricket covering the period from 1866 to 1908 in Shanghai, Hongkong, and Singapore where continued interest has been shown in this most popular of British games. The volume contains a short description of each match and we are certain will be of great interest to all lovers of the sport. The author announces that the edition is limited and will appear October 1st. The price is \$1 50.

PHILIPPINE LUMBER FOR LONDON

The lumbering industry in Mindanao is flourishing as is shown by the report of internal revenue collected for the fiscal year ended June 30th, 1909, on 5,649,894 board feet and valued at ₱457,584.36, easily the leading product of the Moro Province. In addition to this comes the information that the Port Banga Lumber Company has loaded a cargo of hardwood at their mill at Port Banga on the N. D. L. Steamer *Tringgonu* destined for the London market. This is the first full cargo of Philippine hardwood shipped from the islands to this market. The demand is growing for these woods and it would seem that Mindanao is getting its share in reward for well directed effort and enterprise.

CHINESE NAVAL REORGANIZATION

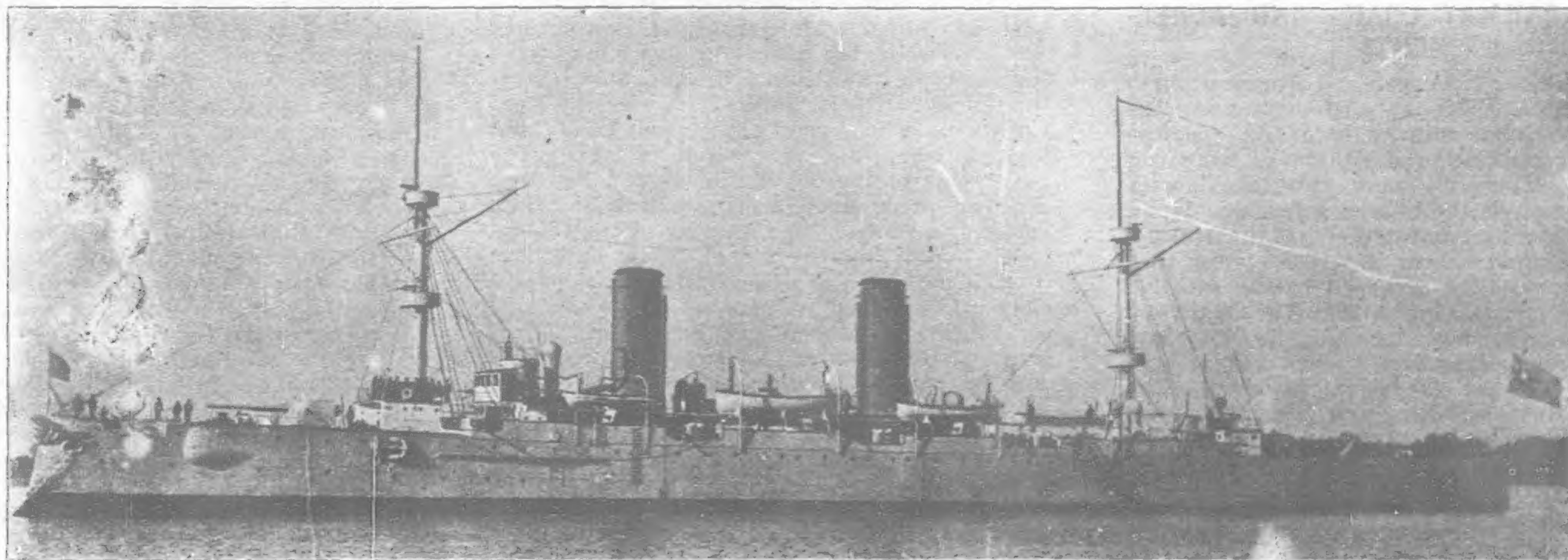
(FROM OUR OWN CORRESPONDENT)

SHANGHAI, September 1st, 1909.

Of the many reforms proposed by the authorities in Peking, the reorganization of the present obsolete war vessels and acquisition of a formidable navy is easily far ahead of any other project in its bearing on China's future, and leads all others in the expenditure of funds. It is becoming clearly evident that China is earnestly pushing forward her programme of military expansion, and at the same time her army is being organized and brought up to a war footing; the naval advance is to keep pace, and at a given time, seven years hence, the two

plorer who recently followed the Great Wall of China to its furthest extremity. He states that in every village and most insignificant hamlet in Kansu his attention was drawn to the squads of natives undergoing military drill, following some well directed plan. This in itself is significant, as such a noticeable programme is not in evidence in other provinces where foreigners can observe it, and if we remember aright, the publication of this obscure news item, was followed shortly afterwards by an order from Peking, prohibiting missionaries or travellers from penetrating into these regions.

in this line. The disjointed native news paragraphs on this subject make interesting reading, but it is difficult to accept a serious view of the much advertised reform. Behind the grandiose schemes and dreams of Dreadnoughts and Celestial Togos arises the specter of Finance. Where is the money to come from? Docks, colleges, equipment and recruiting stations require millions before ships are purchased, and millions are necessary for maintenance. With the present visible resources of the Imperial Government any large scheme is impracticable unless financial reform is hastened, or fresh



THE FLAGSHIP OF THE CHINESE NAVY

H. I. C. M.'s Ship *HAI-CHI*. Protected Cruiser; Displacement, 4,300 tons; I. H. P. 17,000; Speed, 22.5 Knots. Armament: 2 8-in. Quick Firing Guns, 10 4.7 Q., 22 secondary guns. 5 Torpedo Tubes. Built 1898 at Elswick.

arms of the service will have reached that degree of proficiency and strength, planned by Yuan Shih-kai. Then with a modern drilled army under capable officers, and a moderate navy, China will be in the long desired position to maintain a semblance of national dignity in the face of foreign aggressions. For it is not to be doubted that the military spirit has taken hold of China, and with a new generation in power, having the example of Japan ever before them, the dream of military glory has taken firm root in the minds of the younger men. For ages the greatest ambition of the Chinese boy was to attain the rank of Governor of a Province. The change that is taking place in the minds of the youth is best exemplified by the response of a son of one of the highest Peking officials, who, when asked what he desired to be when a man, quickly answered, "A general in the Army." And so the military and naval spirit is growing, and with it a yearning to pay off some old scores against those who have humiliated the Empire in the past. The army reorganization is proceeding as rapidly as funds can be provided to arm and equip new troops, and orders are constantly being issued from Peking urging the Viceroys and Governors to make haste and form the Divisions or Regiments allotted to their provinces. In the most important provinces, foreigners have been able to keep fully advised as to the progress made with the new army, but in the remote border provinces this information has been difficult to secure.

THE ARMY IN KANSU.

It is generally conceded that the best fighters in China are found in the wild border province of Kansu, and the contiguous Mongolian territory. This almost unknown and forbidden land still shelters the banished Boxer leader, Prince Tuan, and gave refuge to Tung-fu-hsian and other rabid Boxer generals, after the collapse of the 1900 movement. It is therefore interesting to read the narrative of the American ex-

plorer who recently followed the Great Wall of China to its furthest extremity. He states that in every village and most insignificant hamlet in Kansu his attention was drawn to the squads of natives undergoing military drill, following some well directed plan. This in itself is significant, as such a noticeable programme is not in evidence in other provinces where foreigners can observe it, and if we remember aright, the publication of this obscure news item, was followed shortly afterwards by an order from Peking, prohibiting missionaries or travellers from penetrating into these regions.

VALUE OF PEKING NEWS.

The utter impossibility of gathering reliable news in Peking has led to the publication of many conflicting reports not only about the Army and Navy, but other official matters. The walls of the Forbidden City effectively protect the high official from the news gatherer, whether native or foreign, and interviewing the President of a Board is a rare privilege. Peking news by the time it reaches the newspapers through several minor officials or yamen servants is stripped of its news value and reduced to rumor, and so the world has been treated to a choice collection of conflicting reports about the reorganization of a Navy for China, with all the trimmings of Dreadnoughts, ordinary battleships, cruisers, torpedo boats, docks, arsenals, wireless telegraphy stations, and everything which a first class Power should possess

burdens of taxation imposed on the long suffering patient Empire.

CHINA'S FINANCES.

The financial condition of the Empire is a long way from being satisfactory, and funds are needed for the most pressing public improvements and urgent reforms. The progress of the country is virtually checked pending a reorganization of the financial system. Despite her present impoverished condition, the natural sources of the Empire's wealth are practically untouched, and with a fairly honest administration of revenues, the receipts of the government would be greatly increased. Where funds for the navy in any large amounts are to be derived from, is a mystery. There exists throughout the provinces an almost unanimous sentiment against the floating of further foreign loans for unproductive expenditure, and even for railway construction there is a well defined antagonism in many provinces against the use of foreign loans. The anti-foreign movement now rampant throughout the length and breadth of the Empire has for its object the elimination of the few existing foreign industries and a recovery of concessions, so there is little chance of the government securing revenue through the development of natural resources by foreign capital. Native investors refuse to finance any large enterprise for fear of official rapacity, so there is little hope from this quarter. Every scheme of legitimate taxation is worked to the limit, and every irregular method of squeezing money from trade and individuals reduced to a science. Loans are issued and new loans entered into to pay off the old ones. Financial stringency is eased by shouldering new obligations, and any temporary expedient for raising funds is eagerly accepted by the provincial authorities, pledging in return every available revenue as security. It is a constant shuffle, robbing Peter to pay Paul, to make the ends meet, and little heed is apparently given to the day of reckoning. After the provincial

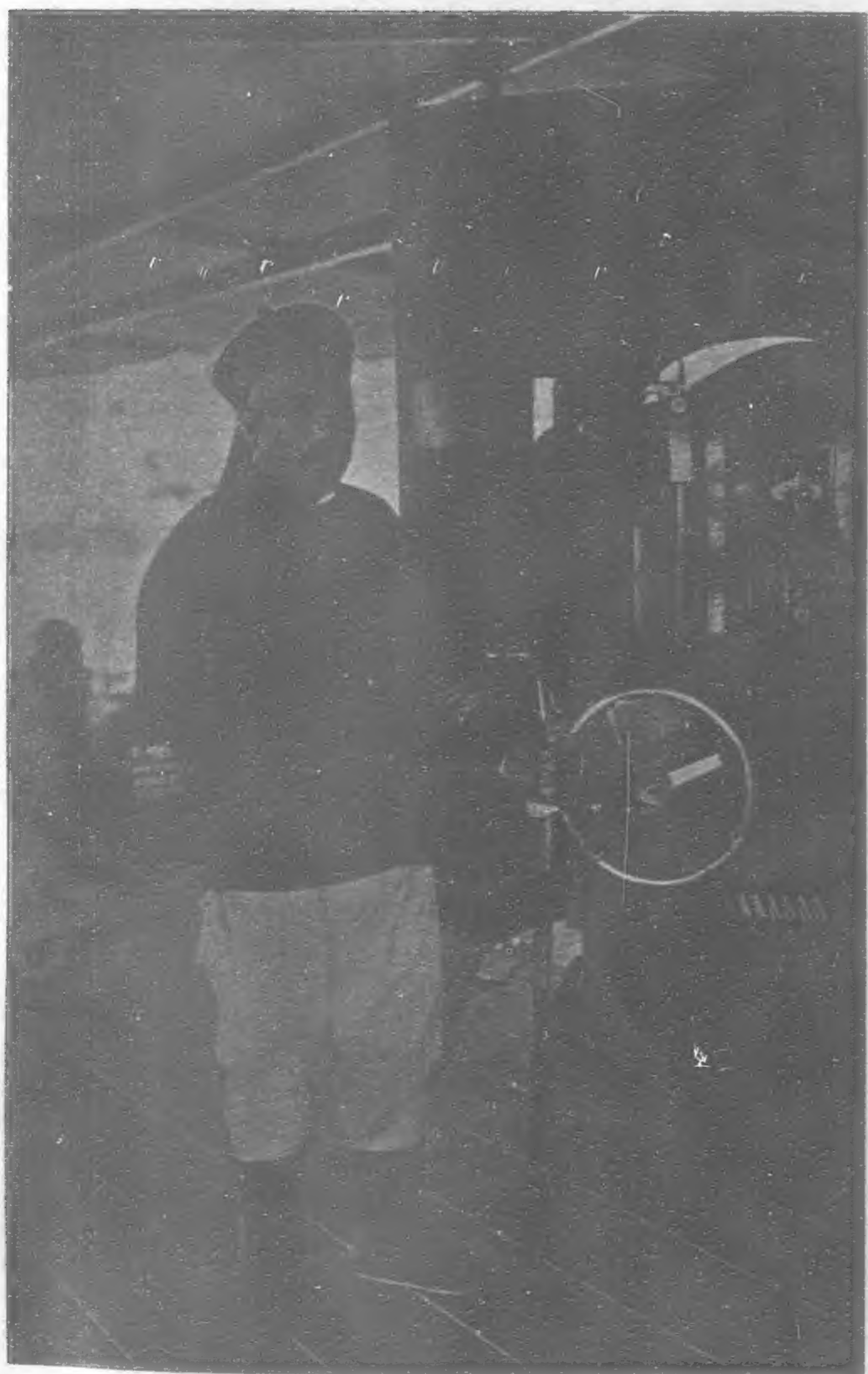


HIS IMPERIAL HIGHNESS, PRINCE TSAI-HSUN
HEAD OF THE NEW NAVAL BOARD

expenditures are cared for, follows the tribute to Peking, which never diminishes. The gratuities to those higher up must be paid, and the private fortunes of the provincial officials maintained and added to, against the day when promotion is desired. Instead of sending more money to Peking, the Viceroys and Governors are all pleading poverty. The establishment of important reforms is delayed and postponed for lack of sufficient funds to carry them out, and we find the old order gradually changing, and the Central Government compelled to appropriate large amounts towards the expense of implanting new schemes in the provinces. The new Viceroy of Yunnan practically refused to accept the post unless Peking contributed towards the expense of creating the modern Army Corps for that province; the Viceroy of Manchuria has sent in several urgent appeals for financial assistance, and so it is all along the line. The provincial authorities are relying to a large extent on irregular levies for the upkeep of their private fortunes, and bitterly resent and oppose any proposed scheme of legitimate taxation interfering with their private perquisites.

FACING A DEFICIT

And so to get down to figures we find that of an estimated Imperial revenue of about \$60,000,000 gold derived from foreign customs, railway earnings and provincial remittances, the foreign loan and indemnity service absorbs approximately \$37,000,000 leaving about \$23,000,000 for current expenses of the Imperial Government, including the Palace and the eleven Ministries or Metropolitan Boards.



NAVAL OFFICER IN UNIFORM



ADMIRAL SAH
IN THE OLD REGULATION UNIFORM

But now comes the latest report from Peking that there is a deficit of 17,000,000 Taels or say \$10,000,000 at the present time, and immediately follows the astounding notice that the Government has decided to organize a fleet of ten men-of-war at a cost of 400,000,000 Taels (or \$240,000,000) and this scheme will be carried out *in spite of the want of means*. The finances of the Empire are in a deplorable condition, and will grow worse instead of improving, unless a change comes over the people and real reforms are instituted and foreign capital invited to develop the enormous natural wealth of the Empire.

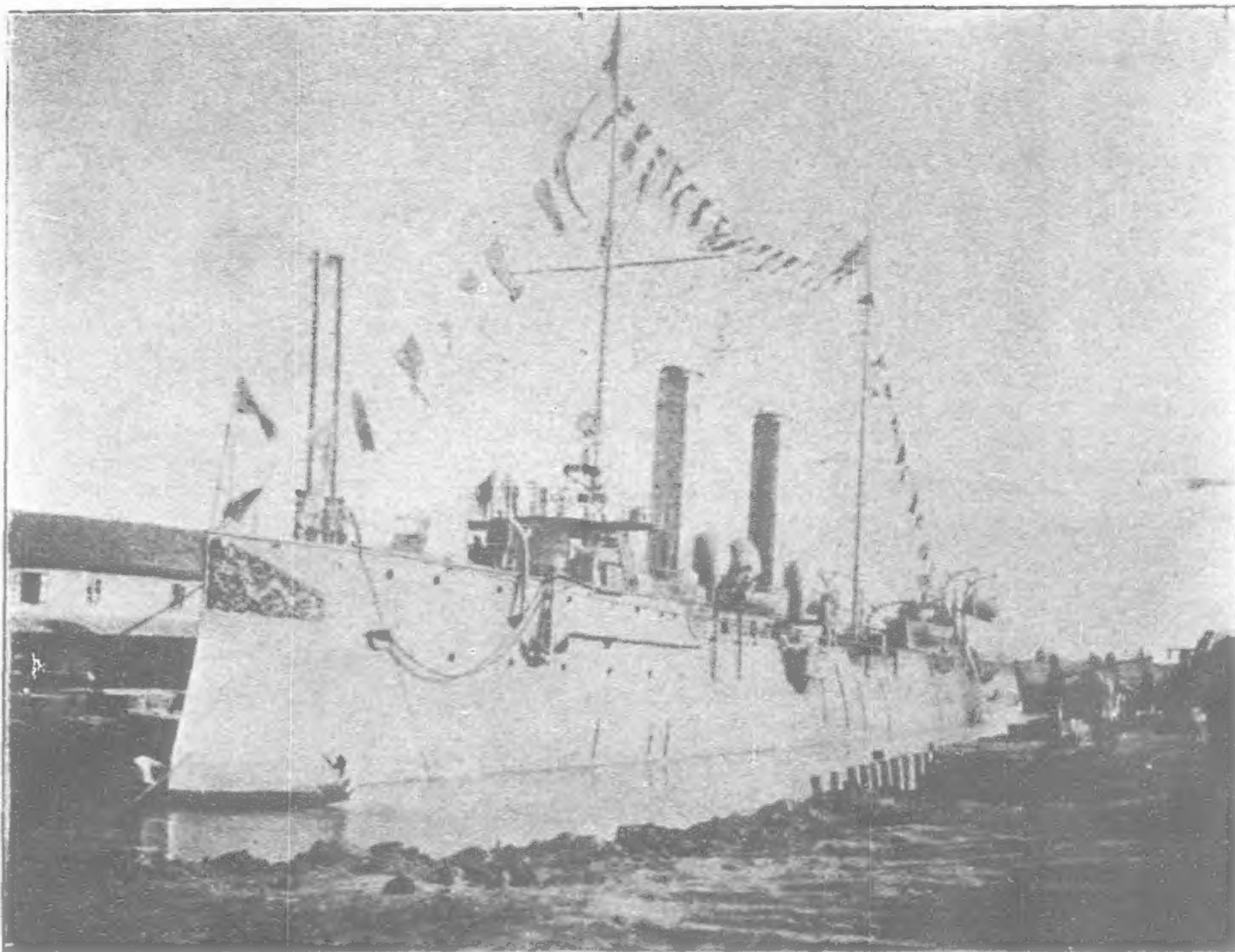
FINANCIAL REFORM

Financial reform has been initiated, but the future holds out little hope for success. The basic principle of the present policy is the centralization of the loan making power. All provincial and metropolitan loans must be sanctioned by the Board of Revenue and approved by the Board of Foreign Affairs. But the provinces refuse to accept the right of the central authority to intervene in their affairs, as instanced in the case of the Shanghai-Hangchow-Ningpo Railway loan, and foreign capital is not secure without the Imperial guarantee. Provincial loans for railway construction in Kiangsu and Anhui in which foreign capital was ready to accept provincial guarantees were refused sanction from Peking, and a solution to the tangle has not yet been found.

A start has been made to nationalize the currency, and bank note experts brought out from America and a printing plant ordered. Studies have been made of foreign financial systems, but the official who conducted the investigations and submitted the report is relegated to a back seat, and his report pigeon holed. Edicts have been issued to submit budgets in 1910, and in 1912 full financial reports of receipts and expenditure must be forwarded to Peking.

An Imperial auditor's department has been created under the direction of the Revenue Board, and a deputy detailed to each province to supervise accounts, but under the prevailing system of appointments this is only another opportunity to find posts for favorites, and the question arises, Who will audit the auditors? With a Board of Revenue supervised by an Imperial Duke, and a set of subordinates lacking experience in intricate financial affairs, the outlook for reform is not particularly bright.

The question naturally arises, where in her impoverished financial conditions is China to raise the enormous sum of \$240,000,000 gold? The borrowing power of the Empire, guaranteed by her present available assets, will not exceed \$50,000,000 at the most liberal estimate. It would appear unless other sources of revenue



H. I. C. M.'S TORPEDO GUNBOAT "KIEN-GNAN"

The Kien Wei and Kien-Guan were built at Foochow Arsenal, 1900. Displacement: 817 Tons. I. H. P. 7,000; 23 Knots. Engines and Boilers made in France. Armament one 3.9 forward, 3 9-pounders and 6 one-pounders, 2 torpedo tubes

were brought to light and a commission of foreign creditors appointed to supervise the finances, there is little hope of any level-headed investor purchasing bonds for the furtherance of a naval scheme.

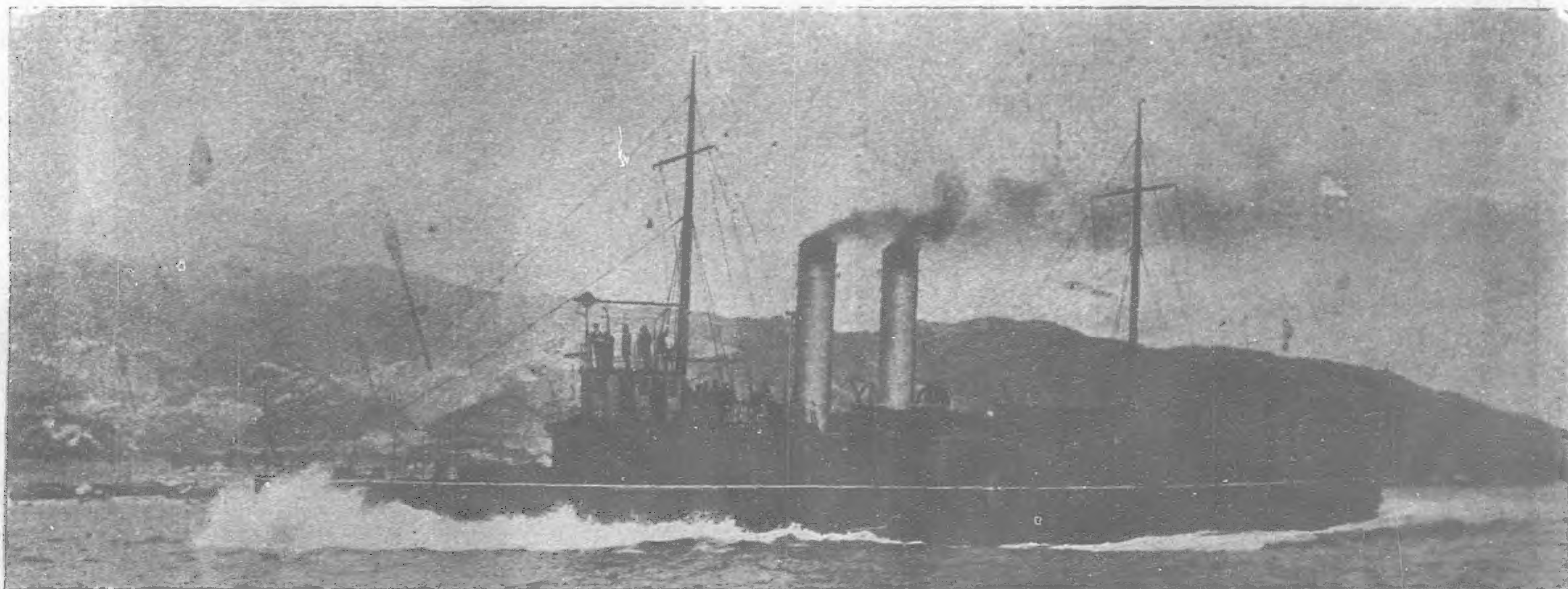
LARGE NAVY UNNECESSARY

If the creation of a navy was the only pressing need of China to-day, a fair start might be made, but with an equally urgent demand for an army, new railways, schools, waterways, and many other drains on the treasury, a large navy becomes a luxury, and an incentive for some more powerful neighbor to acquire new ships at bargain counter prices. The agitation for a large navy follows the growth of the new born national sentiment and desire to be on an equal footing with the foreigner, but in reality the need for such a fleet does not exist. A navy sufficiently large to patrol the coast and rivers and effectively police the trade routes, and

guarantee safety against practical attacks should receive the first serious attention of the government. When foreign men-of-war are obliged to guard their national interests by policing the rivers and deltas of the Empire, owing to the utter helplessness and incapacity of the native police launches, the talk of battleships is premature. The intimacy between the subordinate naval officials and the pirates of the Canton delta renders impossible effective police work by native patrol boats, and compels British and foreign gunboats to remain constantly on duty.

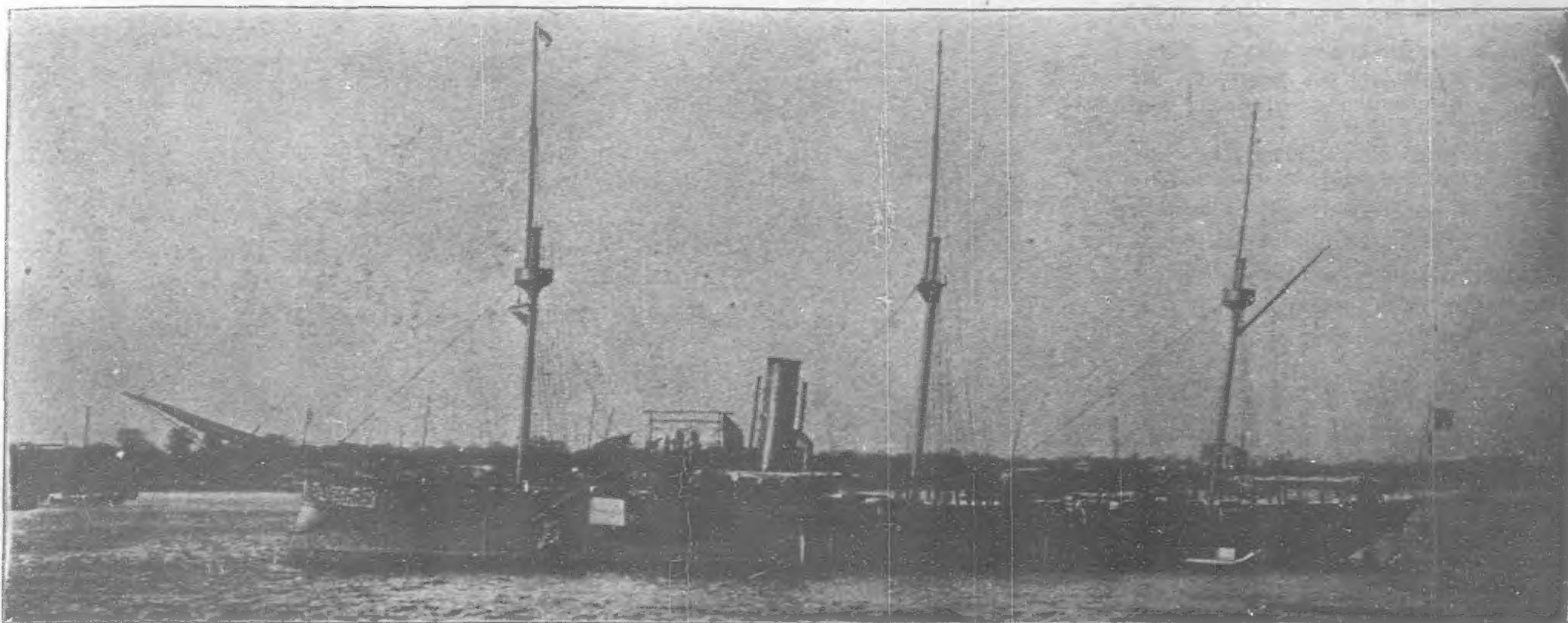
REORGANIZATION SCHEME

In spite of all this China has set her heart on a new navy, and the Regent has given his indorsement to the plan, by creating a commission of reorganization, and approving their findings. Early last February he appointed Duke Tsai Tse, President of the Board of Finance,



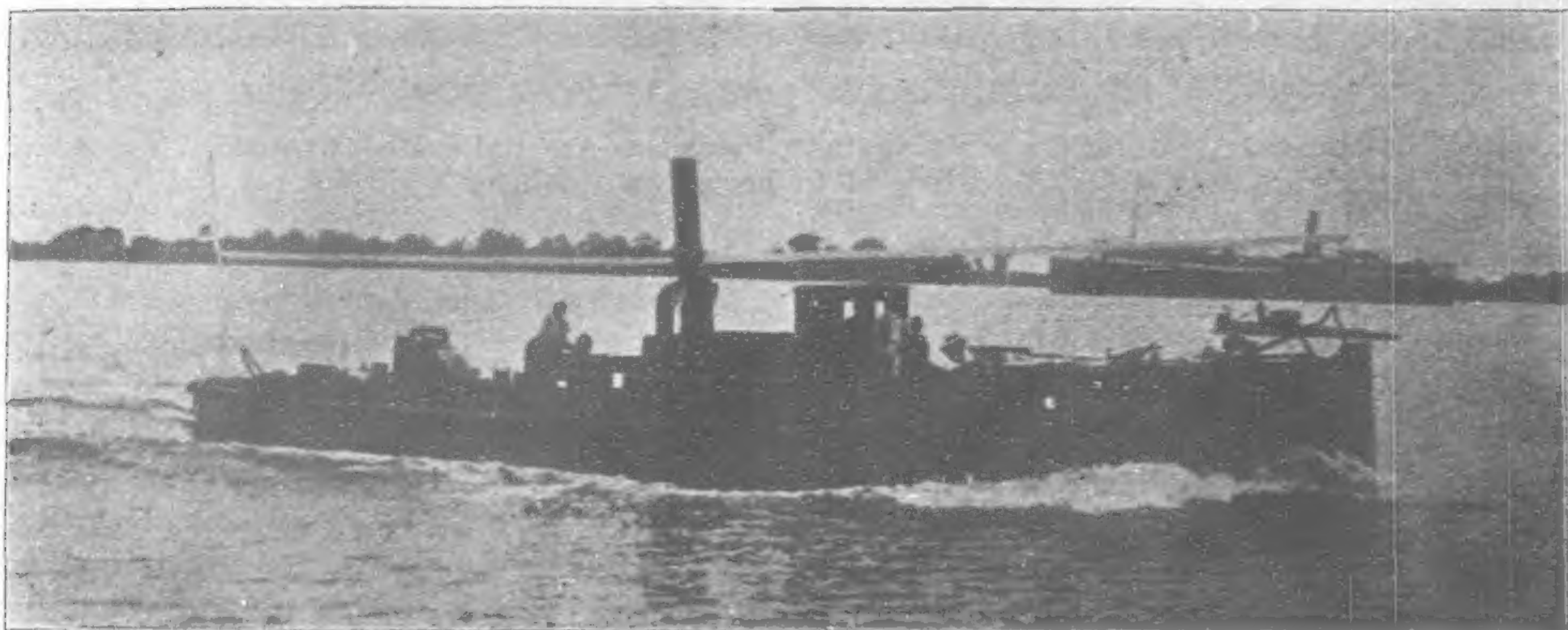
H. I. C. M.'S RIVER GUNBOAT "KIANG-YUAN"

Built at Kobe, 1905, by the Kawasaki Dockyard Company for the Viceroy of the Liang Kiang at Nanking. Displacement: 565 Tons; I. H. P., 487; Speed 14.8 on trial.—One 4.7 quick firing gun, one 3-in. and 4 3-pounders; 4 maxims



H. I. C. M.'S CRUISER "NAN-SENG."

Built at Howaldt, Kiel, 1883. Displacement 2200 tons. I. H. P. 2400, 14-2 knots. 2 8-in. Breech-Loaders, 12 Secondary Guns. 1 Torpedo Tube.



YANGTZE RIVER PIRATE CHASER, BUILT BY THE KIANGNAN DOCK & ENGINEERING WORKS FOR THE VICEROY OF NANKING

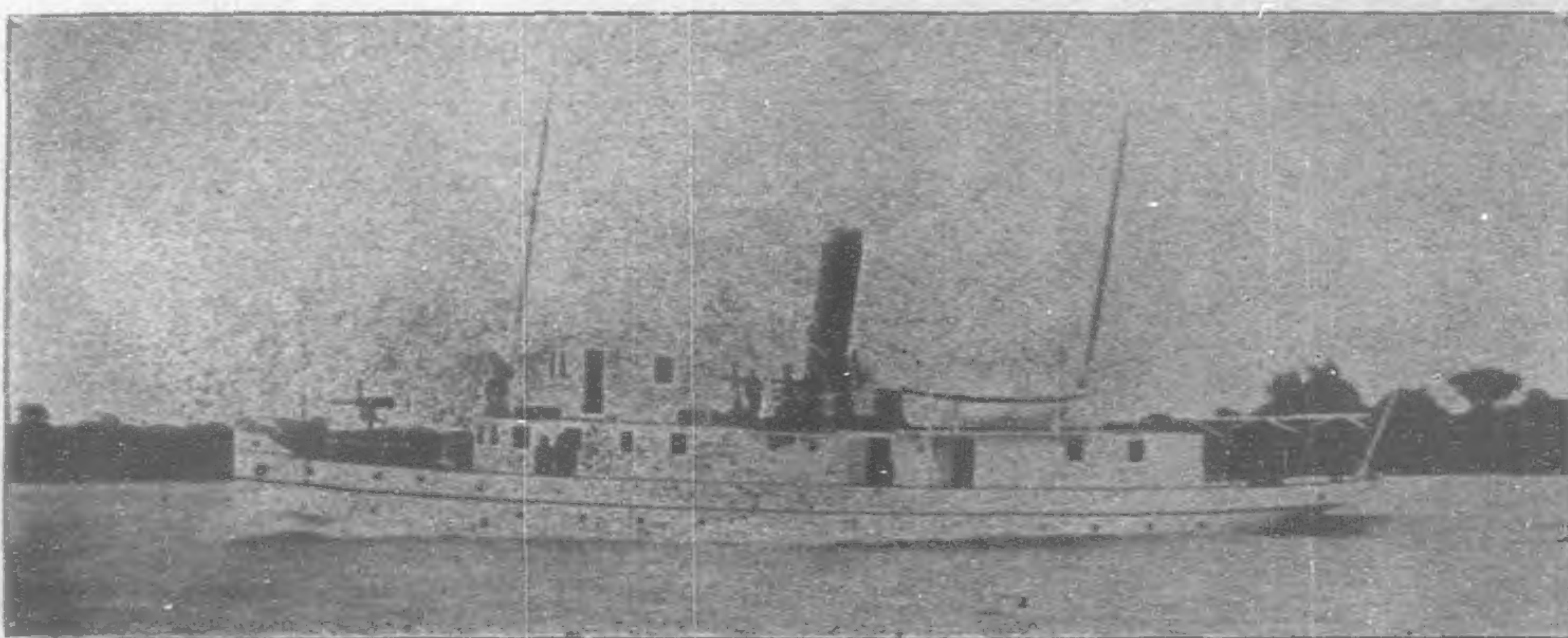
of the Viceroys, and control over their fleets which in the past has led to their refusal to dispatch aid to one another in times of national need. Heretofore the Imperial Chinese Navy has been under the control of the four great coast viceroys at Tientsin, Nanking, Foochow, and Canton, and the funds appropriated for maintenance divided amongst them.

The first rough reorganization scheme, recently approved by the Throne, abolished this antiquated system of four naval sections, and centered control in a Naval and Military Advisory Board, as outlined by the following edict:

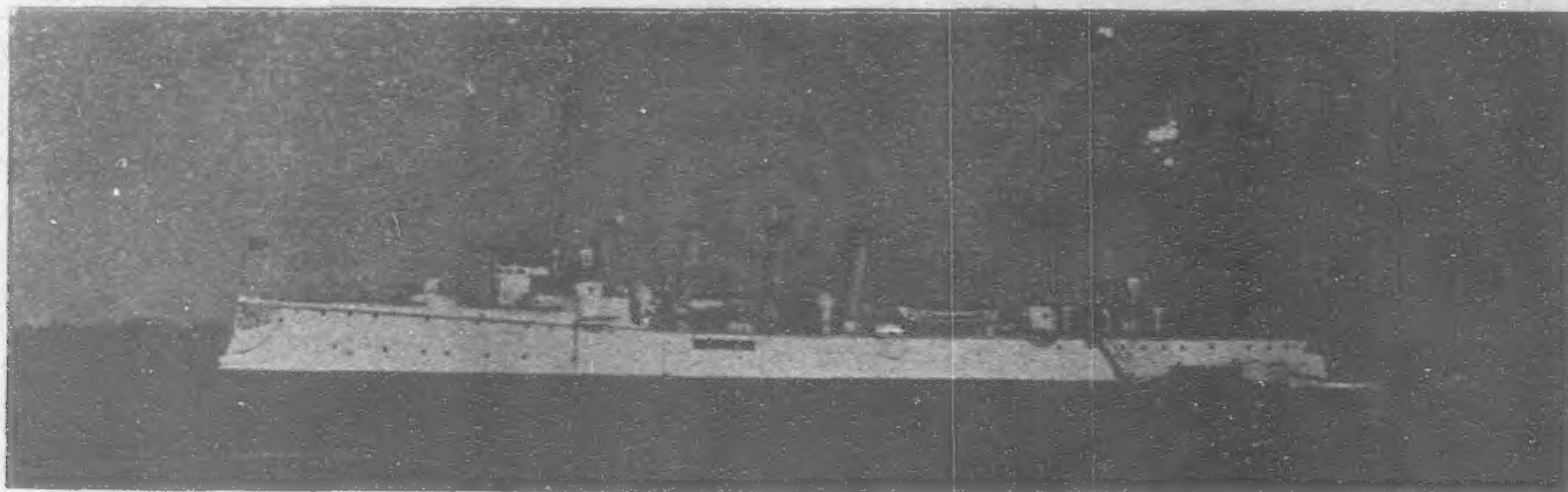
IMPERIAL DECREE

(Edicts were written in vermilion.)—Peking, July 15, 1909.—In the Outlines of Constitution presented sometime ago by the Commission of Constitutional Reform it was set forth that the

Prince Su, President of the Board of Interior, Tieh-Liang, President of the Army Board, and Admiral Sah, the Commander-in-Chief of the Peiyang and Nanyang squadrons, to formulate plans for the new navy. In the above officials the Regent selected the best talent available in China for such an important task, for although only one member of the Board has any real knowledge of such matters, the others, through their position in the Ministry, would have to lend their support and co-operation to any real scheme of reform. Of course, the first step was to have Admiral Sah proceed to Peking and initiate the others into the rudiments of naval knowledge, and his undoubted ability is so far responsible for the progress made. The primary result following the creation of this commission was the centralization of naval power into the hands of the Imperial Government, severing at one stroke the independence



LIAO RIVER GUNBOAT BUILT FOR THE VICEROY OF MANCHURIA BY THE KIANGNAN DOCK & ENGINEERING WORKS



H. I. C. M.'S TORPEDO GUNBOAT "FUI-YING."

Built by the Vulcan Works at Stettin, Germany, 1897, for the Chinese Government through Arnhold, Karberg & Co. Displacement 850 tons. I. H. P. 5500, speed 22 knots. Armament: two 4-in. Krupp's 6 6-Pounders and 2 1-Pounders, 3 14-inch Torpedo Tubes.

supreme command of the Army and Navy should be vested in the authority above. This rule was enacted by Edict in the last reign, in obedience to which We now announce that We will be Generalissimo of the Army and Navy of the Chinese Empire, as laid down in the Outlines of Constitution, and following the example of our Imperial ancestors in holding personal command over the six armies when they obtained possession of the Imperial heritage. By this We seek to encourage a military spirit among the soldiers.

We hereby command the formation of an Army Advisory Board to assist Us in managing military and naval matters in the Empire. Yu Lang, Prince of the 3rd Order, is commanded to be in charge of the board. As We are in youthful years and are being educated, but have not personally attended to state affairs, all our powers and responsibilities as Generalissimo of the Army and Navy shall, temporarily and before Our assuming the reins of Government, be invested in the Prince Regent.

The Army Advisory Board is commanded to report to Us and ask permission to carry out all necessary measures.

As Prince Yu Lang (3rd Order) has been appointed in charge of the Army Advisory Board, Tsai Fu, Imperial Noble, ninth in line of descent, is hereby appointed commissioner to train the Imperial Guard Corps, and Prince Yu Lang is relieved of the post.

Prince Tsai Hsun (3rd Order) and Admiral Sah Chen-ping are hereby appointed Commissioners to devise means for the Navy Organization until further orders, and until some success has been attained. A copy of the memorial on elementary measures to be adopted and requesting the appointment of other Commissioners, presented by the Commissioners appointed to form a nucleus for the Navy, is ordered to be made for the Commissioners now appointed.



THE USELESS DRYDOCK AT FOOCHOW

Located at Pagoda Anchorage a mile distant from the Arsenal. Its entrance is silted up and has to be dredged to permit of docking a ship

The above Edict was sealed by the Prince Regent and signed by the Grand Councillors Prince Ching, Shih Hsu, Chang Chih-tung, and Lu Ch'uan-lin.

H. I. H. PRINCE TSAI HSUN

Following the Regent's new programme the supreme command of the Navy is vested in the Emperor, with a powerful Prince as the Imperial representative and the best naval officer in the Empire as the real directing force. H. I. H. Prince Tsai-Hsun is a younger brother to the Regent, and has absolutely no experience

in military or naval affairs, but his appointment is justified by the Regent's desire to have the Manchu princes of the blood assume a share in the government, and take an interest in the preservation of the dynasty. The announcement is now made that Prince Tsai Hsun will shortly start on a visit to foreign countries to learn something about naval affairs, or in other words to gather ideas and dispel the traditional air of exclusiveness in which he and other of the Princes have moved. It is not expected that Tsai Hsun will return a full baked admiral, but as he is highly intelligent and a keen observer, the trip will open his eyes, so he will see things in the same light as the Regent and Princes Tsai Chen, Tsai Fu, and Pu-lun, who have been broadened by foreign travel.

THE ADMIRAL OF THE CHINESE NAVY

In Admiral Sah (Sa Chen-ping) rests China's hope of real naval reform and reorganization.

No official in China is better equipped for this important duty, and if his advice is followed there is no doubt of practical results. Admiral Sah is a native of Foochow and received his first education in the Naval School at that port, and afterwards completed his training in the British Navy. A course of study at Greenwich Naval College was followed by actual service in the British Navy. Entering the Chinese Navy as a Junior Officer, through his marked ability and devotion to duty, he has risen through the different grades to the highest command. He commanded the cruiser "Tieh-yuen" at the Battle of the Yalu, and after the death of Admiral Yeh was advanced to the vacancy. In 1903 he was ordered to the command of the Pei-yang or Northern Squadron, and in 1905 Admiral of Kwangtung, and Commander-in-Chief of the Land and Sea Forces in 1906. The land command was withdrawn in January 1908, leaving him free to concentrate his attention to his particular sphere of usefulness.



ROTTING AWAY FROM NEGLECT AND DISUSE

Chinese Imperial Arsenal and Mint at Foochow. Erected and managed by French Engineers, equipped throughout with French Machinery. A Yangtze river steamer on the ways under construction.



THE FOOCHOW DRYDOCK.—DOCK ENTRANCE AND PUMP HOUSE

THE PRESENT NAVY.

The existing navy of China consists of three squadrons, the Peiyang with Taku or Chefoo as bases, the Nanyang at Nanking or Shanghai, and the Kuangtung at Canton. In all there are only about twenty serviceable ships, the displacement of the largest being 4,000 tons. The Commission of Reorganization recommended that four cruisers, 16 torpedo boats, ten

Nanking Viceroy. Four second class torpedo boats were also built for the former Viceroy.

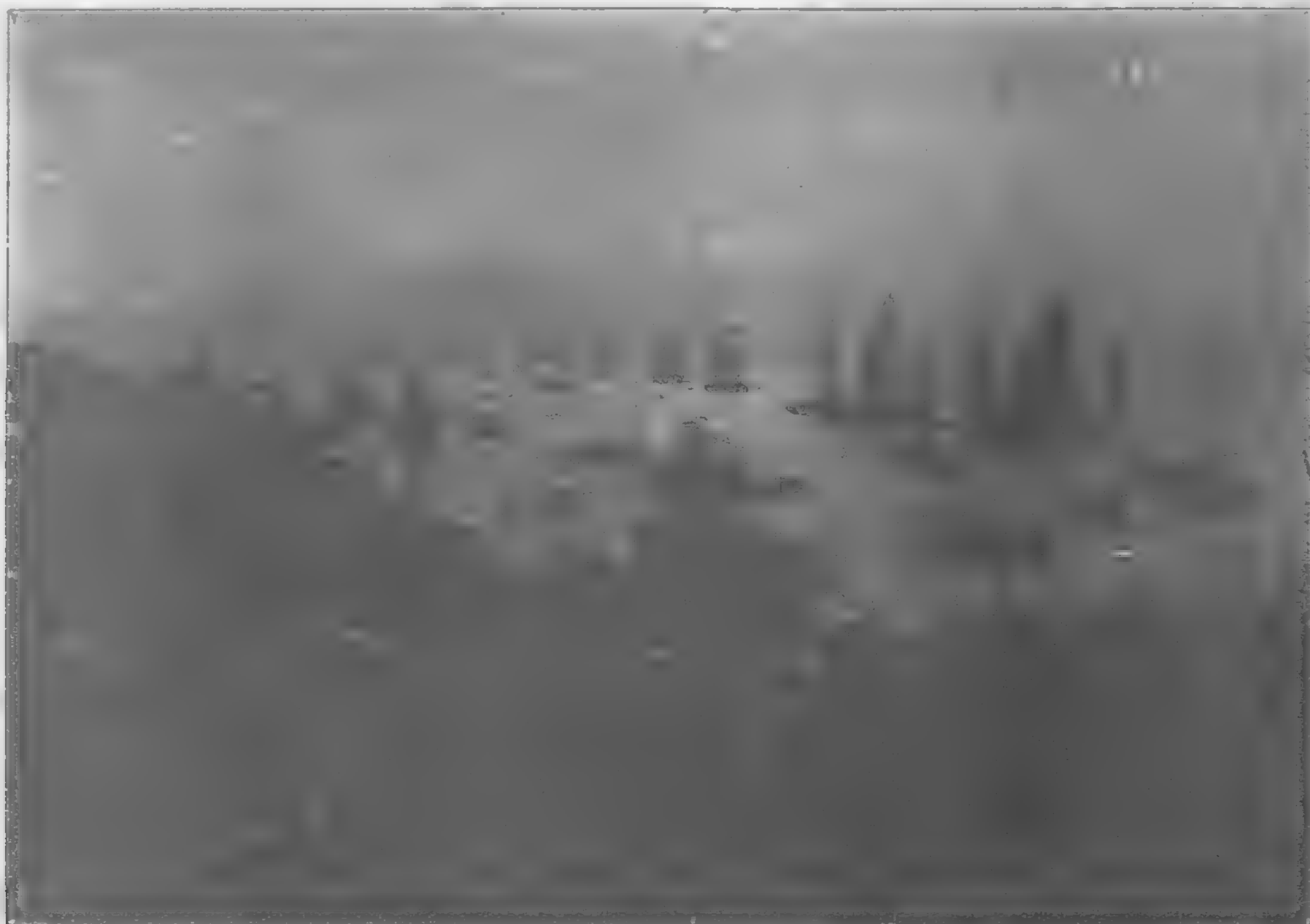
China controls four dockyards and arsenals at Taku, Shanghai, Foochow, and Whampoa near Canton. The most important is the Kiangnan at Shanghai. In the reorganization of these arsenals it is proposed to fully equip and bring the works up-to-date and permit outside mercantile work for the docking and repair of

there. Four naval schools will be established. The present school in the Whampoa Dockyard will be converted into an engineering college for 300 students, the naval school at Chefoo into an imperial navigation college for 320 students, and the school at the Foochow arsenal and dockyard into a shipbuilding college for 200 students. In addition a naval academy or war college is to be located at Peking in which officers will be taught the higher science of naval warfare. The torpedo gunnery and general training school is to be located at Hsiangshan, Chekiang, on Nimrod Sound. The present naval schools in Nanking and Tientsin will also be included in the scheme, the curriculum enlarged and number of students increased. The base in Nimrod Sound is to be fortified and wireless telegraphy installed to connect the forts along the coast.

The increase of the fleet is also recommended and at the same time other important measures are advocated. The impracticability of some of the schemes proposed by Prince Su and Duke Tsai Tze and opposed by the Admiral, creating considerable difference of opinion, have been solved by the Regent appointing Admiral Sah to the Presidency of the new Admiralty Board, and leaving the technical matters entirely in his hands.

It appears that Grand Councillor Chang Chih-Tung has opposed the appointment of the young and inexperienced Princes to the highest commands of the Army and Navy, and in so doing incurred the resentment of the Regent. His continued sick leave is said to be attributable to this clash with the young ruler, and presages his complete retirement at an early date.

The chaotic state of naval affairs in China can be appreciated from the fact that the first step of the new Board was to ascertain the exact number of existing men-of-war and vessels. It hardly seems possible that after some months



THE FOOCHOW ARSENAL.—THE RIVER FRONT LOOKING TOWARDS PAGODA ANCHORAGE

Yangtze River gunboats, 21 coast patrol vessels and 4 training ships should be regarded as in commission at present, and if found serviceable, after inspection, to be carried on the active list as the nucleus of the new navy.

Nine of these gunboats were constructed at the Kawasaki Dockyard at Kobe at a cost of \$2,500,000 gold, six to the order of the Hukwang Viceroy at Wuchang, and three for the

merchant vessels to help defray expenses, as is now practiced at Kiangnan.

PLANS FOR THE FUTURE.

A naval base will be established at Nimrod Sound on the coast, south of Shanghai, a favorite place for the target practice of foreign war vessels. A gunnery school will also be located

of deliberation in Peking the government was ignorant of the number of ships controlled by the Viceroys, yet this is apparently the case, though it undoubtedly refers to the large number of smaller craft doing police duty on the rivers.

According to the programme drawn up and sanctioned by the Throne the work is to be spread over seven years, beginning from the present year. A Navy Council will be created



A SCENE OF "ACTIVITY," THE VACANT BERTHS AT FOOCHOW ARSENAL

in Peking to consist of the Presidents of the Boards of War, Interior and Finance, besides the Navy Commissioners, Prince Tsai Hsun and Admiral Sah Chen-ping. The Viceroys of Chihli, Liang Kiang, Hu-kuang, Min-che, Liang-kuang and Manchuria will also be included in the Council.

For the first year's work account will be taken of all the present ships, and orders will be given for the construction of 2nd, 3rd and 4th class cruisers. Naval bases for the Northern, Southern, Fukien and Kuangtung waters will be inspected, and the naval schools at Tientsin, Nanking, and in Fukien and Kuangtung will be expanded. Steps will also be taken to re-organize the different dockyards:



POLICE BOAT FOR INLAND WATERS, BUILT BY THE KIANGNAN DOCK & ENGINEERING WORKS FOR THE NANKING VICEROY



RIVER PATROL BOAT BUILT FOR THE SZECHUAN VICEROY BY THE KIANGNAN DOCK AND ENGINEERING WORKS

In the second year the following measures are to be carried out:—Formation of fleets; construction of 3rd class cruisers, transports, torpedo-boats and destroyers; construction of naval and gunnery schools; preparation of a naval budget and division of territory into districts for recruiting marines.

Between the third and the seventh years the Government will build eight first class battleships, about twenty cruisers, ten gun-boats and three flotillas of torpedo boats. Distribution of squadrons will take place, naval bases will be completed and transport arrangements carried out. Over and above these measures the Government will recruit a force of marines, create an Admiralty Board, establish a new naval academy and take such other steps as may be necessary from time to time.

SELECTION OF OFFICERS

It is proposed to select the sons of high Manchu officials attending the Noble's School at Peking, and send them to the naval colleges at Nanking and Tientsin for a preliminary course of study preparatory to a foreign education in the navies of the friendly powers. It is reported that the Chinese Government has already arranged with the British authorities to train the cadets on board British warships, and that permission has been granted by the Regent to select one hundred students at once.

All officers, who have served in the Chinese navy, will be returned to duty, after undergoing certain examinations. The Viceroys have been ordered to send in reports recommending such men for reinstatement. The absence of competent native officers to train the men for the new navy and command the ships is a factor in the scheme occupying the serious attention of the authorities. Students are now being educated in England, France, and Germany, and a request has been made to have the

number increased. Prince Hsien Chang, the son of Prince Su, is pursuing naval studies in Germany, and other graduates of the Noble's School at Peking are to be sent to Europe for the same purpose. Whether the naval academies of Europe and America will be as freely opened to China as they were to Japan is problematical, for there is a tendency to discontinue such courtesies.

The escape of a Chinese naval pupil on board the French training ship Borda who decamped to Belgium with papers stolen from an officer's cabin, has served to intensify the dislike of French officers to the admission of foreign cadets to the training ships. There is a revulsion of feeling in France at least to this



THE PEACEFUL QUIET AT FOOCHOW ARSENAL

system, and the officers are complaining that after educating the Japanese they are now expected to teach the Chinese. The recent incident of a Chinese military student in Japan who acquired the mobilization plans of the

DESPERATE FINANCIAL SITUATION

Of course the all-important part of the scheme is to raise the funds. And as already pointed out every cash of revenue entering Peking has a

Minister of the Treasury decided that by economising the expenses of the Imperial household and other Yamens in Peking a saving of \$3,600,000 could be made, and the following measures were also proposed: increase in the taxes



The HAI-CHI in the "OLD DOCK" of the Shanghai Dock & Engineering Co., Ltd.

regiment and other valuable information, led to the summary dismissal of all Chinese students from the army. The order, it appears, was subsequently rescinded. While these examples are on a par with methods employed by some

capacious maw open to receive it. The desperate straits of the government to raise funds for the navy programme are fully disclosed by the many proposed schemes for this purpose.

on land, tobacco, spirits, sugar and houses, to award honorary titles in return for voluntary contributions, to raise a loan from Chinese abroad, to raise foreign loans, to tax the fishing boats protected by the navy, etc. Prince Su



The "HAI-TIEN," Sister Ship of the "Hai-Chi," wrecked on the Saddle Rocks, off Shanghai

regularly accredited military attaches of other nations who have reduced the art of securing information to a science, foreign governments are beginning to be a little more exclusive in extending courtesies of this nature.

The late Viceroy Yang of Chihli, by discharging unnecessary officials, saved about \$210,000 in salaries and arranged to have the amount sent to Peking for naval extension. The Regent after consultation with the Grand Council and

proposed to raise funds by consolidating the salt revenue of the Empire, but the Treasury Minister opposed it. The sum of \$170,000, the New Year allowance of the Imperial Household remitted by the Empress Dowager, was with



H. I. C. M.'S SHIP "HAI-HSIN"

Displacement, 2,950 tons. I. H. P. 7,500, 19.5 knots. Three 5.9 in. quick firing guns, eight 4-in and 13 guns in secondary battery, 3 torpedo tubes. The Hai-Yung class of three protected cruisers, built in 1897-98 by the VULCAN WORKS at Stettin, Germany, for the Chinese Government, through ARNHOLD KARBURG & Co.

her consent appropriated by the Regent for the navy.

The Minister of the Treasury appropriated about \$1,700,000 from the opium duties for initial urgent expenses, and after his associates requested a regular allowance of \$9,000,000, he managed to spare \$3,000,000 from the present funds but advocated that seven tenths of future funds be raised from the different provinces and the balance by contributions from the people and from Chinese abroad with special honors and awards for any one who contributes a gunboat or small vessel.

Some official proposed that instead of draining the peoples' pockets only to raise insufficient revenue, permission be granted to open and develop mines, and use the profits for the navy, but he must have been under foreign influence, for the memorial was shelved. It was further advocated that 30 per cent of the annual net profits of the China Merchants' Steam Navigation Company be set aside for the navy.

The extremities of the government to raise the large amount for this purpose has led to many reputed offers of foreign financial assistance. German firms, it is reported, offered to loan the money and build the ships. British interests were alleged to stand ready to loan a few hundred millions without any security, and again that America would advance any necessary funds for this purpose.

Owing to the many financial perplexities which practically prohibit China from carrying out any large scheme with the present resources of the government, it is urged that only a large foreign loan can solve the problem, and

this cannot be floated until permanent reforms are in force. The latest information is to the effect that the Naval Commission has reported to the Throne that a sum of 18 million taels will be required as preliminary expenses in the carrying out of the naval reforms, and a further annual charge of 2 million taels will be required for maintenance. The report urges that the Board of Finance and the provincial governments may be ordered to provide the above amounts. According to the naval budget, which has been approved by the Throne, the sum of 1½ million taels is for the construction of a naval station, of which amount half a million is required forthwith and the other million next year; the remaining 16,500,000 taels are to be spent on the construction of warships, which will cover a period of four years. The Board of Finance, under instructions from the Throne, undertakes to raise half a million taels this year and one million next year, for the purpose of building a naval station, and as regards the other amount of 16,500,000 taels, which is to be divided into four yearly instalments of something like 4,250,000 taels, besides which there is another two million taels to be provided every year for maintenance, the Board finds difficulty in raising 6,250,000 taels a year unless it gets the co-operation of the provincial governments. Of that total amount the Board of Finance has expressed its readiness to raise 5 million taels, and asks the Throne to order the Viceroy and the Governors to raise between themselves the balance. In consequence of this the Throne has given instructions to all the Viceroy and Governors, instructing them to report how much each of them can furnish towards the naval funds.

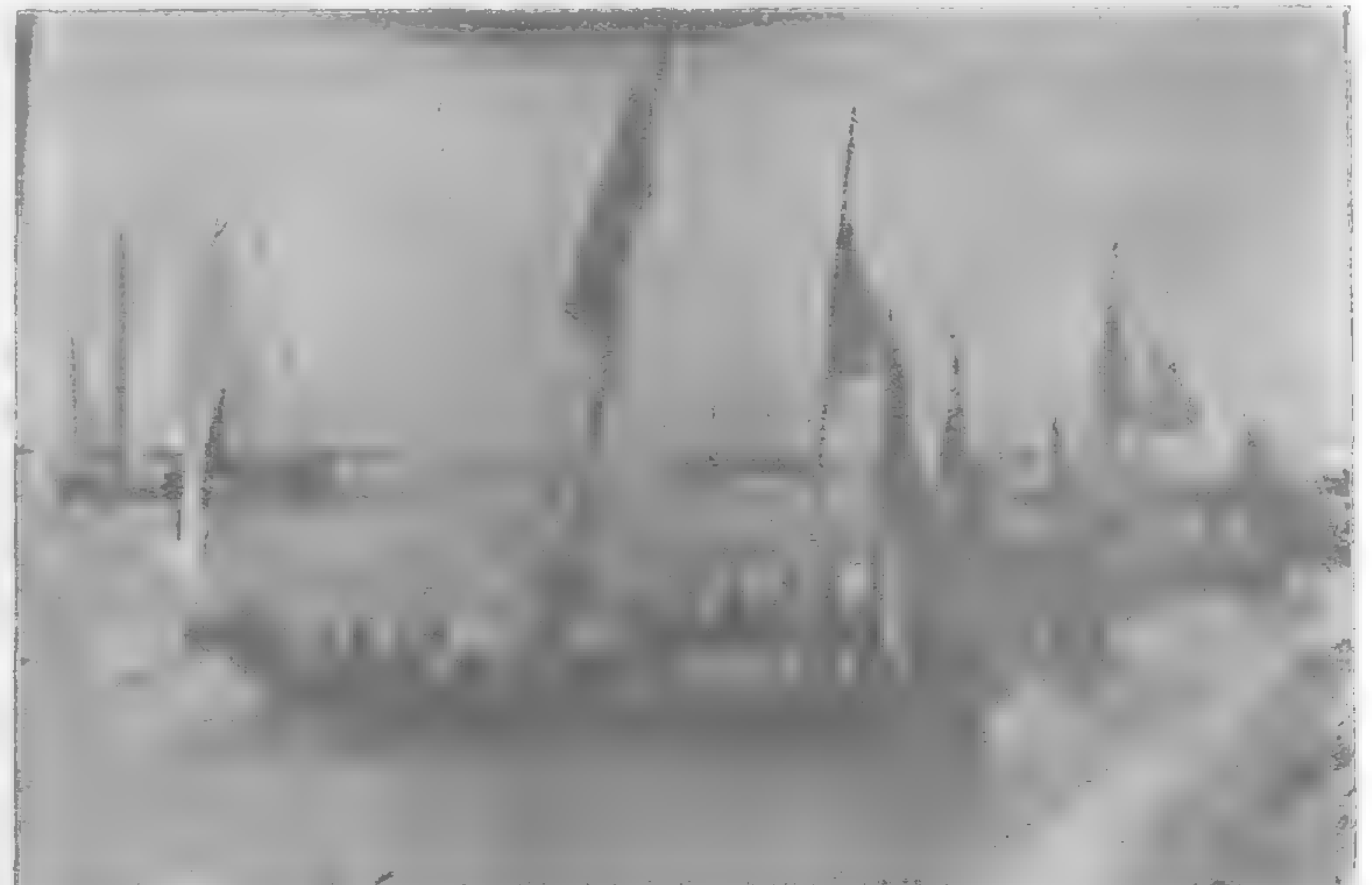
THE IMPERIAL TREASURE

It is quite evident that the foregoing report, which includes only Taels 16,500,000 or roughly speaking \$10,000,000 gold, for construction expenses as already outlined, is insufficient. Eight battleships, 20 cruisers, ten gunboats and three flotilla of torpedo boats cannot be constructed for this sum, and strength is given the previous report that \$240,000,000 gold will be expended.

But the persistence of the Regent and his advisers in carrying through the scheme, in spite of the apparent lack of sufficient resources, and his refusal to accept foreign financial assistance, leads us to consider another view of the situation which has not been touched. While the Government is poor, and in financial straits, there remains the great wealth of the Imperial family to be reckoned with. Overlooked by the Allied Troops, who ransacked the Palace from end to end, the accumulated treasure of years lies untouched in the secret vaults over which the foreign soldiers lit their camp fires, unconscious of the wealth underneath. The tribute of years to the Empress Dowager and former sovereigns are here hoarded, and available for the country's defense. Native reports are to the effect that an investigation by the Chief of the Imperial Household disclosed the fact that the treasure amounted to Taels 19,000,000 of gold and Taels 999,000,000 of silver, or roughly speaking some \$1,000,000,000 gold. This amount of actual treasure is enormous, and it may be greatly exaggerated. But there is every reason to believe that the Imperial



H. I. C. M.'S SHIP "HAI-YUNG"
In Dock at the Kiangnan Arsenal, Shanghai



THE OLD AND THE NEW
Native Patrol Junks and New Cruisers at Nanking

treasure must be vast, as the tribute from the provinces, gifts from officials and other perquisites of the Throne have been rolling into Peking for years. The money has not been expended on any great public improvements, or buildings, or diverted into any provincial reform scheme, so it is safe to believe that it exists.

If we accept the view that the Regent and other young members of the Imperial Clan broadened by foreign travel, realize that the very existence of the Empire and the dynasty is at stake, we can well believe that in such an emergency the hidden treasure would be drawn on. So when we read that the naval scheme will be carried out in spite of the lack of funds, the only solution is that the Regent is determined at any sacrifice to fulfil his trust, preserve the dynasty, and turn over intact the inheritance of his son when the latter is of age. The appointment of his brother Prince Tsai Hsun as the head of the Navy, and in supreme control of expenditure, insures honest expenditure of the Imperial wealth.

THE KIANGNAN DOCK AND ENGINEERING WORKS

The works of this enterprising company are situated at Kiangnan on the left bank of the Whangpoo River, and since 1905, when the dockyard section of the Imperial Chinese Government Arsenal was taken over by the commercial company, the plant has been extended and brought to a high standard of efficiency.

When the dockyard was taken over, it was at once increased in size and its length over all is now 381 feet. The length on blocks is 375 feet; water on sill 19 feet; entrance top, 70 feet; bottom, 60 feet. Besides the big dry dock a patent slipway is maintained for small steamers and launches with building shops in connection.

While the Kiangnan Dock & Engineering Works are situated on the same site with the Chinese Imperial Arsenal, the institutions are quite separate, yet the company does all the work as general contractors for the Imperial Chinese Navy and the Imperial Maritime Customs.

The pumping plant provided for the dry-dock comprises two 20-foot and one 10-foot centrifugal compound pumping engines supplied with steam by two large Lancastershire boilers with separate flues and funnels, together with an emergency marine type boiler, all with a working pressure of 100 pounds to the square inch. The berthing of vessels, entering or leaving the dock, is well provided for together with splendid housing accommodations for crews. A pair of sheerlegs are installed on the upper wharf with a lifting capacity of 60 tons propelled by steam winding engine.

The machine shop is in keeping with the modern, up-to-date character of the docks, which also may be said of the foundry and auxiliary shops. A 40-ton travelling crane serves this commodious building from end to end. Modern face, sliding, and surfacing lathes are installed in this building, among them a heavy triple-gear sliding surfacing screw cutting lathe manufactured by Messrs. Craven Bros. of Manchester, with 25 inch centers and capable of handling any piece of work up to 32 feet in length. There are also a heavy horizontal drilling and bolting machine and a vertical planing machine with horizontal traverse worthy of special notice. The latter can handle a surface 10 feet 6 in. by 16 feet. Besides these more important machines there are a large number of lathes, slotting, planing, screwing and drilling machines of British and American manufacture. The power is supplied by a large horizontal expansion engine with a double cylinder emergency engine as well so as to avoid the delay occasioned by breakdowns.

The foundry is equipped with three 2-ton cupolas and one large one with drop bottom and other latest improvements capable of melting eight tons an hour. The foundry is also served with cranes, one 15-ton and one 3-ton. Under the former is a large circular casting pit capable of casting propellers up to 18 feet in diameter. There is also the brass foundry which is equipped with a Carr's patent crucible

furnace with a capacity to meet the requirements of the work.

The pattern shop, the smithy, and the copper-smith shop are close to the foundry. The smithy is served by two 4-ton jib cranes, and the equipment of the shop is sufficient to weld shafts 18 inches in diameter.

The different departments are served by a railway, rails being laid from the wharves and the dock, so that transportation is expedited.

The directors of the company are Admiral Sha, commander in chief of the Imperial Chinese Navy, and Kwong-Kwoh Wah, Taotai Imperial Chinese Navy.

and Fokien naval forces. Since that time the arsenal has been restored and in addition a new dock was ordered constructed in 1887 on Looing Island. This dock is over 300 feet in length and modernly equipped. It has very powerful pumps and a steel caisson making it a very important yard for the repair of Imperial vessels and for the construction of small craft. The reconstruction and direction has been carried on largely under French experts. The extension of the present establishment is now under consideration, and last year the Peking Government sent a deputation abroad to study shipbuilding and the management of naval

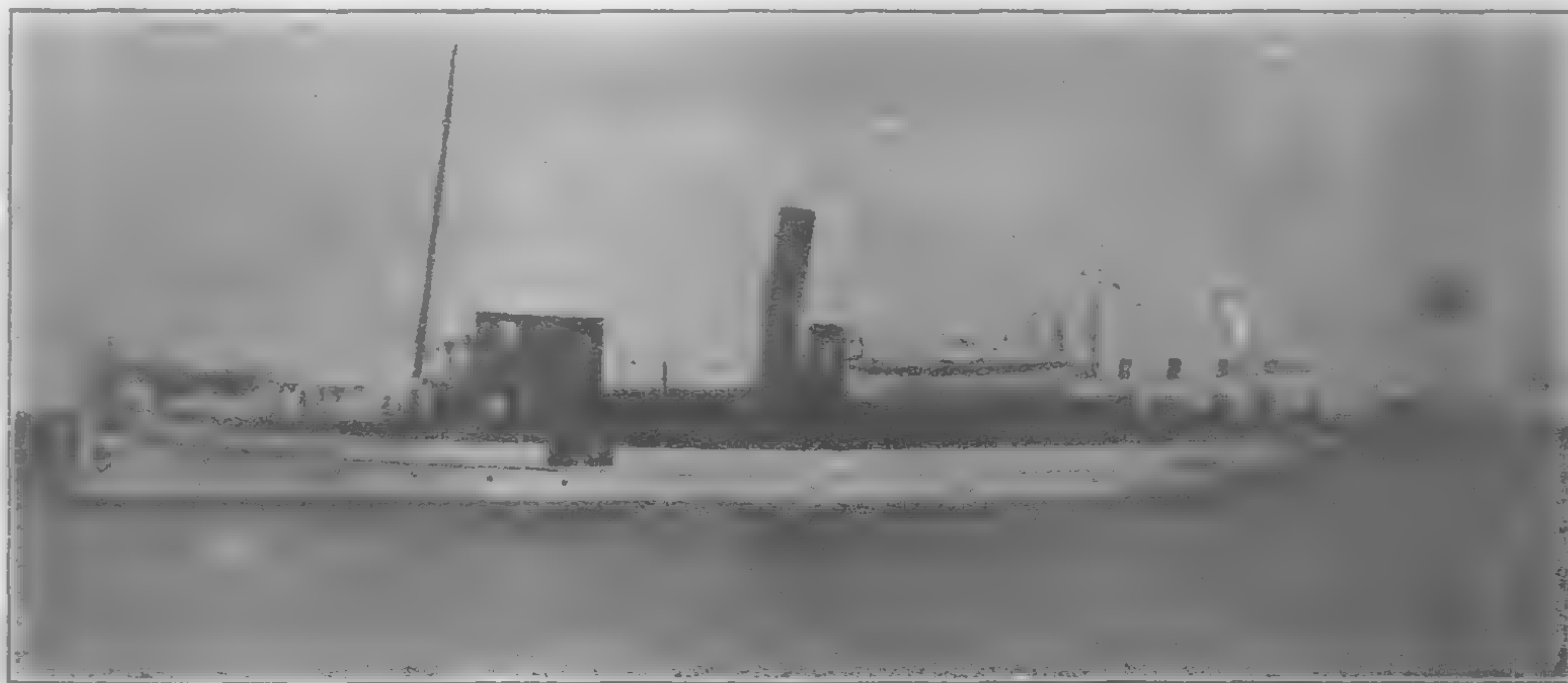


KIANGNAN DOCK WITH A CHINESE CRUISER ON THE WAYS

THE FOOCHOW ARSENAL AND DOCKYARD

This important Imperial Naval Arsenal and Dockyard is situated at the Pagoda Anchorage in Foochow and is known locally as the Mamoi

yards in foreign countries and arranged for the purchase of a large site in addition to the present works for the construction of additional buildings for machine shops and foundry.



H. I. C. M. S. "AN FOON," A STEEL SINGLE SCREW DISPATCH BOAT BUILT BY THE KIANGNAN DOCK AND ENGINEERING WORKS, SHANGHAI, FOR THE NGANA HWUI PROVINCIAL GOVERNMENT.—ARMAMENT, ONE 47 MM. Q. F. GUN; ONE 37 MM. Q. F. GUN AND FOUR MAXIMS.—SPEED 12.5 KNOTS; DISPLACEMENT 170 TONS.

Arsenal. This institution was first built under French direction in 1875, and by a singular turn in international relations was almost destroyed by the French Fleet under Admiral Courbet in 1884 as well as all the fortifications

Of the recent vessels turned out by this dockyard was the S. S. *Ning Shao* for the Ningpo, Shaoshing S. N. Co., for the service between Shanghai and Ningpo, that made her initial trip July 19th of this year.

This vessel is 240 feet in length with a 42 ft. beam and draught 10, loaded. She makes 13.5 knots an hour. She has twin screws; is built of steel throughout and is fitted with electric lights and every modern convenience. This gives an idea of the growing capacity of the dock to turn out modern work, and with the proposed reorganization and the expenditure of large sums of money in expansion by the Federal Government, this Arsenal and Dockyard promises to take a prominent part in the development of China's navy and her merchant marine.

THE WHAMPOA DOCK AND NAVAL YARD

The Whampoa Dock and Naval Yard is about all that is of interest at Whampoa and is maintained by the Chinese Government for the repair of the vessels of the South China Gunboat squadron. In addition to the docks



VICEROY'S ARSENAL AT HANYANG: FLOATING DOCK IN THE HARBOR OF TSINGTAU

a Government Torpedo School has been established at this point.

The history of these docks dates back to the time when only sailing craft were engaged in the South China trade. Before Hongkong became British, there were mud docks owned by Chinese at Whampoa. The foreign owners of vessels did not care to rely upon the repair of vessels by the Chinese and the P. and O. Company secured the services of Mr. John Couper to supervise such work as was done on its vessels. This pioneer of shipbuilding leased the Chinese Mud Docks and added the Couper Dock which was built larger and along more modern lines. Then followed the clash between the Chinese and the British over the Lorcha Arrow affair and the Chinese destroyed the Couper Dock in part. It was afterwards repaired and an indemnity paid. Couper was kidnapped and disappeared and his son was paid \$120,000 by the Chinese. In 1863 young Couper sold his interest to Messrs. Douglas, Lapraik and Company and to the Hon. Thos. Sutherland, superintendent of the P. and O., and the Hongkong and Whampoa Dock Company, Ltd., was formed. Afterwards the company found it necessary to increase its facilities and purchased the Lamont and Hope docks at Aberdeen, and later the Cosmopolitan Dock Co.'s property, all of which has since been extended and improved.

In the meantime the large mud docks at Whampoa, which still belonged to the company, were sold to the Chinese Government, and it is this property that is now designated as the Whampoa Dock and Naval Yard. From time to time Peking has indicated interest in its development, and it is expected with the carrying out of the naval program that these docks will not be neglected.

CHINA'S NAVAL LIST

(From "The Naval Pocket Book," 1908.)

(It is reported that the Chinese Navy is to be reorganized with the assistance of the Japanese Government. 3 battleships of 14,000 tons, 3 second-class cruisers, and some torpedo boats are proposed.)

The following suffixes indicate to which of the four local fleets each vessel belongs:

(N) North Sea fleet. (F) Foo-kien flotilla.
(S) South Sea fleet. (C) Canton fleet.

PROTECTED CRUISERS.

"HAI-CHI," (N). Built at Elswick, Jan. 23, 1898.

Steel. 2 screws. 2 funnels f. and a. 2 mil. masts, 2 tops on each.

Length, 396 ft. over all. Beam, 46 ft. 7 in. Mean draught, 16 ft. 8 in.

Displ., 4300 tons. I.H.P. 17,000=24 kts. for., and 22.5 kts. nat.

Coal cap., 400-1000 tons=8,000 miles at ocean. sped.

"HAI-YUNG," (N). Built at Stettin, Sept. 16, 1897.

"HAI-CHEW," (N). Built at Stettin, Dec. 11, 1897.

"HAI-CHEN," (N). Built at Stettin, Feb. 12, 1898.

Steel. 2 screws. 2 funnels f. and a. 2 masts, 1 top high on each.

Length, 328 ft. Beam, 40 ft. 9 in. Mean draught, 14 ft. 5 in.

Displ., 2,950 tons. I.H.P. 7,500=19.5 kts. Coal cap., 200-500 tons.

Engines: 2 sets 3 expans. Boilers, cylind. Protection: steel deck, 1.5 to 2.7 in. Gun positions, 2 in.

Armament: 3-5.9 in. Q.; 8-4 in. Q.; 6-1 pr. Q.; 6 Maxim mach.; 1-2.3 in. boat or field. Torpedo tubes, 3; two above water on beams, one submerged in bow. Compt. 244.

CRUISERS.

"TON-CHI," (N), 1895.

Steel. 1 screw. 1 funnel. Barque-rigged. Displ., 1,800 tons. Speed, 15 kts. Armament:

2-5.9 in. Q.; 1-4.7 in. Q.; 2 small Q. Compt. 244.

"NAN-THIN," (S), Howaldt, Kiel, Jan. 8, 1883.

Steel. 1 screw. 2 funnels. Barquentine. Length, 235 ft. Beam, 36 ft. Mean draught,

18 ft. Displ., 2,200 tons.

I.H.P. 2,400=14.2 kts. Coal cap., 460 tons.

Armament: 2-8 in. B.; 7-40 pr. Vavasseur;

1-4.7 in. Krupp Q.; 3 Nord. mach.; 1 Maxim.

Torpedo tube, 1. Compt. 250.

"KING-CHING," (S), Foo-chow, 1886.

Wood. 1 screw. 1 funnel. Barquentine.

Length 263 ft. Beam, 32 ft. 3 in. Draught,

15 ft. Displ., 2,100 tons. I.H.P. 2,400=14

kts. Coal cap. 360 tons. Armament: 2-7 in.

Armstrong B.; 7-40 pr. B.; 6 Maxims. Torpedo

tubes, 2. Compt. 231.

"PAO-MIN," (S), 1884.

Composite. 1 screw. 1 funnel. Barquentine.

Length 217 ft. Beam 36 ft. Mean draught,

14 ft. Displ., 1,477 tons. I.H.P. 2,400=14

kts. Coal cap., 360 tons=3,360 miles. Arma-

ment: 2-5.9 in. Krupp B.; 6-4.7 in. Krupp B.;

4 mach. Torpedo tubes, 2; one on each bow.

Compt. 260.

TORPEDO GUN VESSELS.

"KIEN-WEI," (S), Foo-chow, 1900.

"KIEN-AN," (S), Foo-chow, 1900.

Iron. 2 screws. Poop and fore-castle. 2

funnels f. and a. 2 sig. masts. Length 255 ft.

Beam, 26 ft. 11 in. Max. draught, 11 ft. 5 in.

Displ., 817 tons. I.H.P. 7,000=23 kts. Trial

speed (1903) about 20.5 kts. Engines in France

by Forges et Chantiers at Havre. Boilers:

Normand-Sigaudy. Protection: sides and deck

amidships, 1 in. Armament (Canet): 1-3.9 Q.

forward; 3-9 pr. Q.; 6-1 pr. Q. Torpedo tubes, 2.

Engines: 4 cylind. 3 expans. Boilers, cylind. 4 double, 4 single-ended, by Hawthorn, Leslir & Co. Grate area, 940 sq. ft. Heating surface 27,560 sq. ft.



GENERAL VIEW OF THE KIANGNAN DOCK

Protection: Steel deck, 1½ to 5 in. 8-in. gun supports and hoists are 4 in. Shields, 4½ in. Conning tower, 6 in.

Armament: 2-8 in. Q.; 10-4.7 Q.; 12-3 pr. Q.; 4-1 pr. and 6-4.5 in. Maxims. Torpedo tubes (18 in.), 5, above water. (There are on sponsons.)

"FUI-YING," (N), Stettin, July 11, 1897.

Steel. 2 screws. Ram bow. 4 funnels. 2 pole masts. Length 246 ft. Beam, 28 ft. 5 in. Mean draught 13 ft. Displ., 850 tons. I.H.P. 5,500=22 kts. 8 Yarrow tubulous boilers. Coal cap., 180 tons.

GUNBOATS.

"TSOW-HAI," (S).

Wood. 1 funnel. Ram bow. Length 168 ft. Beam, 27 ft. 5 in. Displ., 730 tons. I.H.P. 430=12.5 kts. Armament: 5-40 pr. Krupp B.; 2-12 pr. copper guns.

"TAI-AN," (N), 1896.

Wood. 1 screw. 3 masts. Length, 200 ft. Beam, 32 ft. 8 in. Draught, 12 ft. 5 in. Displ., 1,250 tons. I.H.P. 600=10 kts. Armament: 4-40 pr. Vavasseur; 2-3 pr. Compt. 83.

"CHEN-HAI," (N), Foo-chow, 1875.

Wood. 1 screw. 1 funnel. 2 masts. Schooner rigged. Length, 166 ft. Beam, 26 ft. Draught, 10 ft. 3 in. Displ., 950 tons. I.H.P. 350=9 kts. Coal cap., 160 tons. Compt. 260.

"TOENG-YING-CHOU," (S), Foo-chow, 1875.

Wood. 1 screw. Clipper bow. Brig-rigged. 1 funnel. Length, 200 ft. Beam, 33 ft. Mean draught, 11 ft. 6 in. Displ., 1,258 tons. I.H.P. 600=10 kts. Armament: 1-6.3 in. Vavasseur; 6-3.9 in. Vavasseur; 5 mach. Compt. 260.

"TSOW-TSAI," (S).

Wood. Brig-rigged. Clipper bow. 1 funnel. Displ., 950 tons. Speed, 14 kts. Armament: 1-40 pr. Armst.; 2-16 pr.; 2-10 pr. Armst.; 2 Maxims.

"TSOW-HAI," (S).

Wood. 1 funnel. Ram bow. Length, 168 ft. Beam, 27 ft. 5 in. Displ., 730 tons. I.H.P. 430=12.5 kts. Armament: 5-40 pr. Krupp B.; 2-12 pr. copper guns.

"CHING-YUEN," (S).

Wood. 1 funnel. Brig-rigged. Ram bow. Length, 160 ft. Beam, 26 ft. Draught, 10 ft. Displ., 587 tons. I.H.P. 478=10 kts. Armament: 1-60 pr. Vavasseur; 5 other guns; 2 Maxims. Compt. 118.

"TSO-TING," (S), (ex-Delta), Elswick, 1877.

Iron. 2 screws. 1 funnel. Schooner-rigged. Length, 121 ft. 4 in. Beam, 29 ft. 5 in. Draught 8 ft. 2 in. Displ., 400 tons. I.H.P. 310=9 kts. Armament: 1-26 ton Armstrong; 2-90 pr. Armstrong B.; 1 Maxim. Compt. 61.

"FON-CHIN-CHAI," (C), 1867.

Wood. 1 screw. Length, 165 ft. Displ., 800 tons. I.H.P. 500. Armament: 2-40 pr.; 2-20 pr.; 2 Maxims. Compt. 120.

"KUANG-YIL," (C), 1891.

"KUANG-KING," (C), 1890.

Wood. 2 screws. Length, 150 ft. Beam, 24 ft. Draught, 9 ft. 5 in. Displ., 600 tons. I.H.P. 500=12.5 kts. Armament: 2-4.1 in. Krupp B.; 2-3.3 in. Krupp B.; 2 Maxims.

"HAI-KING-CHIN," (C), (ex-Lambont), Elswick, 1881.

Wood. 1 screw. 1 funnel. Schooner-rigged. Length, 125 ft. Beam, 29 ft. Mean draught, 9 ft. 3 in. Displ., 450 tons. I.H.P. 300=10 kts. Coal cap., 60 tons. Armament: 1-11 in. Armstrong B.; 2-18 pr. B.; 3 Maxims. Compt. 63.

"CHEN-TAO," (C), 1867.

Wood. 1 screw. 1 funnel. 2 masts. Length, 150 ft. Draught, 8 ft. 6 in. Displ., 450 tons. I.H.P. 265=7 kts. Armament: 4-1.6 in. Q.; 4-1.4 in. Hotchkiss; 2 filed guns. Compt. 67.

"KUANG-KAN," (C), China, 1887.

"KUANG-MAO," (C), China, 1887.

"KUANG-CHI," (C), China, 1887.

Wood. 1 screw. Schooner-rigged. Length, 150 ft. (Kuang-kan, 144 ft.) Beam 20 ft. 7 in. Mean draught, 10 ft. (Kuang-mao, 7 ft.). Displ., 560 tons. I.H.P. 400=11 kts. Armament: 1-4.7 in. Krupp B.; 1-3.9 in. Krupp B.; 4 mach. (Kuang-kan has 3-4.7 in. Krupp B.; 3-3 in. Krupp.; 1 Hotchkiss mach.)

"NIN-HO," (S), 1882.

Ram bow. 1 funnel. 2 masts. Schooner-rigged. Displ., 354 tons. Armament: 5 Krupp guns.

"FUI-HOU," (S).

2 masts. Displ., 350 tons. Armament: 2-20 pr.

"KIN-AU," (S), 1882.

Iron. 2 screws. Length, 100 ft. Displ., 195 tons. I.H.P. 50. Armament: 1-6 in. Krupp B.; 1-4.7 in. Krupp B.; 1 Maxim. Compt. 53.

"PING-CHING," (S), 1880.

Iron. 1 screw. 1 funnel. 2 pole masts. Length, 273 ft. Beam, 30 ft. Draught, 18 ft. Displ., 532 tons. I.H.P. 480. Armament: 1-6.2 in. Armstrong; 4-4.3 in. Armstrong; 1-3.5 in. Armstrong.

"CHIN-HAI," (F), 1872.

Wood. 1 screw. Length, 160 ft. Beam, 26 ft. Draught, 10 ft. Displ., 578 tons. I.H.P. 480. Armament: 1-6.2 in. Armstrong; 4-4.3 in. Armstrong; 1-3.5 in. Armstrong. (Torpedo Depot Ship at Foo-chow.)

"AN-LAN," (C), 1871.

Wood. 2 screws. Length, 150 ft. Draught, 8 ft. 6 in. Displ., 350 tons. Speed 7 kts. Armament: 5 guns. Compt. 70.

"HAI-TON-SHON," (C), 1881.

Wood. 2 screws. Length, 125 feet. Beam, 29 ft. Draught, 9 ft. 3 in. Displ., 350 tons. I.H.P. 200=8 kts. Armament: 1-11.5 ton Armstrong; 1-18 pr. Armstrong; 3 Maxims. Compt. 62.

"HAI-CHAN-CHIN," (C), 1871.

Wood. 2 screws. Displ., 500 tons. I.H.P. 455=10.4 kts. Armament: 1-11.5 ton Armstrong; 1-18 pr. Armstrong; 3 Maxims. Compt. 63.

"SOI-CHING," (C), 1871.

Wood. 2 screws. Length, 130 ft. Displ., 350 tons. I.H.P. 180=6.5 kts. Armament: 1-40 pr. Krupp B.; 1-18 pr. Gatling. Compt. 39.

"KUANG-YUEN," (C), 1886.

"KUANG-CHING," (C), 1886.

"KUANG-HONG," (C), 1886.

"KUANG-LI," (C), 1886.

Wood. 2 screws. Length, 110 ft. Beam, 18 ft. Draught, 7 ft. 6 in. Displ., 300 tons. I.H.P. 78=7 kts. Armament: 1-4½ ton Krupp B.; 1-3.5 in. Krupp B. (Coast Defense Vessels.)

"KUANG-KING," (C).

"FUI-WING," (N).

Small gunboats.

ARMoured GUNBOAT.

"TIEN-SING," 1875.

Wood, 2 screws. 1 turret. 1 funnel. Length, 105 ft. Beam, 20 ft. Mean draught, 6 ft. 6 in. Displ., 200 tons. I.H.P. 340=10 kts. Armour: citadel, 2 in. Turret, 3 in. iron. Armament: 1-7 in. Krupp, B.

SPECIAL SERVICE VESSEL.

"FEE-CHEU," Doxford, Sunderland, Apr. 20, '87.

Steel. 2 screws. Fitted both as cruiser and as cable ship. Length, 219 ft. Beam, 33 ft. Mean draught, 13 ft. 4 in. Displ., 1,400 tons. I.H.P. 1,000=13 kts. Engines: 3 expans. Armament: 2-6 in. Armstrong B.; 4 mach.

RIVER GUNBOATS.

"KIANG-YUAN," (S), Kobe, 1905.

Steel. 2 screws. Length, 170 ft. Beam, 28 ft. Draught, 8 ft. Displ., 565 tons. I.H.P. 487=14.7 kts. (on trial). Armament: 1-4.7 in. Q.; 1-3 in. Q.; 4-3 pr. Q.; 4 Maxims.

"CHEW-TAI," (S), Kobe, 1906.

"CHEW-TIEN," (S), Kobe, bldg.

"CHEW-TONG," (S), Kobe, 1906.

"CHEW-YUI," (S), Kobe, bldg.

"CHEW-IU," (S), Kobe, 1906.

"CHEW-KOANG," (S), Kobe, bldg.

Steel. 2 screws. 2 funnels. 2 pole masts. Length, 190 ft. Beam, 29 ft. 6 in. Draught, 8 ft. Displ., 750 tons. I.H.P. 1,350=13 kts. Armament: 2-4.7 in. Q.; 2-12 pr. Q.; 4 Maxims.

FLOATING BATTERIES.

1	4
2	5
3	6

Wood. 1 screw. 1 wood turret. Length, 135 ft. Beam, 36 ft. Mean draught, 11 ft. 8 in. Water line belt 1 in. iron. Armament: 3-9 in. 12-ton M. in the turret.

DESPATCH VESSELS AND TRANSPORTS.

"CHIN-HAN," (F), 1873.

Wood. 1 screw. Length, 201 ft. Beam, 35 ft. Draught, 13 ft. Displ., 1,450 tons. I.H.P. 600=9 kts. Armament: 1-6.2 B.; 4-4.7 in. B. Compt. 107.

"YUEN-KAI," (F), 1875.

Wood. 1 screw. 1 funnel. Clipper bow. 3 masts. Length, 11 ft. 5 in. Displ., 1,258 tons. I.H.P. 600=10 kts. Armament: 1-6.2 in. Vavasseur; 4-3.9 in. B. Compt. 84.

"CHAO-WU," (F), Foo-chow, 1878.

Wood. 1 screw. Ram bow. 1 funnel. Brigantine-rigged. Length, 210 ft. Beam, 30 ft. Mean draught 12 ft. 6 in. Displ., 1,209 tons. I.H.P. 750=11 kts. Armament: 1-7.5 in. B.; 4-40 pr. Compt. 84.

"FU-PO," (C), 1870.

Wood. 1 screw. Displ., 1,260 tons. Speed, 10 kts. Armament: 2-6.2 in. B.; 6-40 pr.

"SI-CHEW," (C), 1878.

Wood. 1 screw. Displ., 500 tons. I.H.P. 300. Armament: 1-20 pr. Krupp B., 2-12 pr. Q.; 2 Maxims. Compt. 70.

*BANKING IN JAPAN

(Concluded.)

It was established as a joint-stock company under the Law of the Hypothec Bank of Japan (Law No. 82, 1896), with a capital of yen 10,000,000 (¥1,024,275), of which yen 5,000,000 (¥512,138) is paid up.

The business of the Bank is principally (1) to make on mortgage of immovable property loans which shall be redeemable by annual instalments within a period not exceeding fifty years, or at a fixed term of not more than five years, provided in the latter case the total amount of such loans does not exceed one-tenth of the total amount of loans redeemable by annual instalments; (2) to make loans without security to Prefectures, Districts, Cities, Towns, Villages, and other public corporations organized by law; (3) to make loans without security redeemable at a fixed term or by annual instalments in cases of the re-adjustment of arable land under the law for such re-adjustment; (4) to take up the agricultural and industrial debentures issued by the various agricultural and industrial banks which are established under the Agricultural and Industrial Banks Law; (5) to accept funds in trust in connection with its business and take custody of gold and silver bullion and negotiable papers; and (6) in the event of the Bank receiving any funds in trust above referred to or having in the course of its business money lying idle, to purchase there-with temporarily various national and local loan bonds or with the approval of the Minister of Finance, to deposit such funds or money in a trustworthy bank.

The Hypothec Bank is authorized, when at least one-fourth of its nominal capital has been paid up, to issue mortgage debentures to an amount not exceeding ten times its paid-up capital, provided the amount of such debentures shall not exceed the total amount of outstanding loans redeemable by annual instalments and the agricultural and industrial debentures in hand. These debentures must be redeemed with premiums by means of drawings taking place at least twice a year in amounts proportionate to the amount to be redeemed in the same year of the loans redeemable by annual instalments and agricultural and industrial debentures in hand. In case any loans redeemable by annual instalments are repaid before they are due, the Bank may with the amount so repaid purchase and redeem its mortgage debentures.

The mortgage debentures have since April, 1907, been issued for the absorption of small funds scattered among the people. The face-value of these debentures, formerly twenty yen, is now reduced to ten yen.

The Industrial Bank of Japan. (Nippon Kogyo Ginko).—The Industrial Bank of Japan is a joint-stock company established under the Law of the Industrial Bank of Japan which was promulgated in March, 1900. Its author-

* The Financial and Economic Annual of Japan.

ized capital which was at first yen 10,000,000 (£1,024,275) was raised to yen 17,500,000 (£1,792,482) in February, 1906, by the amendment of the Law, of which yen 16,250,000 (£1,664,447) is now paid up. Just as the Hypothec Bank is intended to furnish long, low-interest loans on mortgage of immovable property for agricultural and industrial enterprises, so the Industrial Bank makes it its special object to handle bonds and shares of various kinds. While the former is a kind of *crédit foncier*, the latter is a species of *crédit mobilier*.

The business carried on by the Industrial Bank is (1) to make loans on pledges of national and local loan bonds and companies' debentures and shares; (2) to subscribe for, or take up national and local loan bonds and companies' debentures; (3) to receive deposits of money and accept the custody of articles of value; (4) to engage in trust business; (5) to discount bills presented with national or local loan bonds, or companies' debentures or shares as security; and (6) to make loans on security of a foundation created as prescribed by law. Owing to the defect of law, the trust business was very inactive till March, 1905, when the Law of Trusts for Secured Debentures, and the Railway, Factory and Mining Mortgage Laws were promulgated, and since then this branch of business has made steady progress.

The Bank is authorized to issue debentures to an amount not exceeding ten times its paid-up capital, provided, however, the amount of such debentures shall not exceed the total amount of outstanding loans, discounted bills, and national and local loan bonds and companies' debentures and shares in hand. Only in the event of funds being required for enterprises for public benefit undertaken in a foreign country may the Bank, with the approval of the Minister of Finance, issue debentures irrespective of the above-mentioned restriction.

Agricultural and Industrial Banks. (Noko Ginko).—The Agricultural and Industrial Banks are local financial organs for furnishing long-term loans at a low rate of interest and, being established in every prefecture, are most useful through their connection with their central organ, the Hypothec Bank of Japan.

The Agricultural and Industrial Banks are joint-stock companies established under the Agricultural and Industrial Banks Law of April, 1896, and have each a capital of not less than yen 200,000 (£20,486). Each of these Banks has as a general rule for its exclusive business district the whole of Hokkaido or a prefecture.

The business carried on by Agricultural and Industrial Banks is principally (1) to make on mortgage of immovable property loans which shall be redeemable by annual instalments within a period not exceeding thirty years, or at a fixed term of not more than five years, provided in the latter case the total amount of such loans does not exceed one-fifth of the total amount of loans redeemable by annual instalments; (2) to make similar loans, but without security, to Cities, Towns, Villages, and other public corporations organized by law; (3) to make loans without security redeemable at a fixed term of not more than five years to a party of at least twenty persons combined with joint liability, who are engaged in agriculture or industry, or to associations created under the Industrial Associations Law; (4) to make loans without security redeemable at a fixed term in case of the re-adjustment of arable land under the law for such re-adjustment; (5) to receive fixed deposits and accept the custody of gold and silver bullion and negotiable papers; and (6) to purchase temporarily various national or local loan bonds or mortgage debentures of the Hypothec Bank with money lying idle in the course of their business or to deposit such money in other banks. They may also take charge of the receipt and disbursement of the funds of their respective prefectures.

The Banks are authorized, when at least one-fourth of the nominal capital has been paid up, to issue agricultural and industrial debentures to an amount not exceeding five times the paid up capital such debentures, moreover, must not exceed the balance of the total amount of outstanding loans redeemable by annual instalments after deducting therefrom that part thereof

which has been given as security for money borrowed from the Hypothec Bank. These agricultural and industrial debentures must be redeemed with premiums by means of drawings at least twice a year in amounts proportionate to the amount thereof to be redeemed in the same year.

With the object of aiding these Banks in their business in accordance with the provisions of the Agricultural and Industrial Banks Aid Law of April, 1896, the Government delivered in a fixed proportion to the Prefectural Authorities (those of Okinawa Prefecture excepted) the funds provided in the Budget for taking up the shares of the Agricultural and Industrial Banks in the respective business districts over which they exercise jurisdiction.

The Hokkaido Colonial Bank. (Hokkaido Takushoku Ginko).—The Hokkaido Colonial Bank was established with the object of supplying capital for enterprises for colonizing and exploiting Hokkaido, and especially for the purpose of facilitating the supply of capital by making loans on security of agricultural products and companies' shares and debentures as well as by making long-term loans of low interest on immovable property.

The Bank was established as a joint-stock company under the Law relating thereto which was promulgated in March, 1899, and has a capital of yen 5,000,000 (£512,138), of which yen 3,500,000 (£358,496) has been paid up.

The business of the Bank is (1) to make on security of immovable property loans redeemable by annual instalments within a period not exceeding thirty years or at a fixed term of not more than five years; (2) to make loans on pledges of the shares and debentures of joint-stock companies which have for their object the colonization and exploitation of Hokkaido, and to subscribe for or take up the debentures of such companies; (3) to deal in bills of exchange and documentary bills and to make loans on security of agricultural products of Hokkaido; (4) to receive deposits and accept the custody of objects of value; (5) to discount bills accompanied by definite security; (6) to make loans without security redeemable by annual instalments or at a fixed term to public corporations in Hokkaido; (7) to make loans without security redeemable at a fixed term of not more than five years to a party of at least twenty persons combined with joint liability, who are engaged in agriculture or industry, or to Associations created under the Industrial Associations Law; and (8) to purchase national or local loan bonds or companies' debentures with money lying idle in the course of its business.

The Bank is authorized to issue debentures to an amount not exceeding five times its paid-up capital; such debentures, moreover, must not exceed the total amount outstanding of the aforementioned loans on mortgage of immovable property which are redeemable by annual instalments within a period not exceeding thirty years. These debentures must be redeemed by means of drawings at least twice a year in amounts proportionate to the amount of the said loans to be redeemed in the same year.

The Bank of Taiwan. (Taiwan Ginko).—The Bank of Taiwan was established as a joint-stock company under the Law of the Bank of Taiwan which was promulgated in March, 1900. Its capital is yen 5,000,000 (£512,138), of which yen 5,000,000 (£512,138) has been paid up.

The business of the Bank is (1) to discount bills of exchange and other commercial bills; (2) to engage in exchange business; (3) to collect bills for merchants who are its regular customers; (4) to make loans on securities of a reliable nature; (5) to receive deposits and accept overdrafts; (6) to accept the custody of articles of value, such as gold and silver coins and documents; (7) to buy or sell gold and silver bullion; and (8) to act as agent for other banks.

The Bank is privileged to issue bank-notes of one yen and upward, which are at any time convertible into gold yen. It is required to hold as conversion reserve gold and silver coins and bullion of the same amount as the notes issued; the amount of notes not covered by this specie reserve is limited to yen 5,000,000 (£512,138); they may be issued on security of Govern-

ment paper money and securities, notes of the Bank of Japan, and other bonds and commercial bills of a reliable nature. Notes issued beyond this limit are subject to a tax of not less than five per cent per annum.

The above are some of the important provisions of the present Law of the Bank of Taiwan revised in February, 1906. Previous to this, one-yen silver coins were allowed to circulate as legal tender in Taiwan at a ratio to gold fixed by the authorities, and the notes issued by the Bank were to be convertible into silver yen. But the fluctuations of the official ratio of silver yen to gold led the people to enter on speculation, which resulted in so many evils that the currency reform in the island could no longer be delayed. Consequently, the Taiwan Administration Office issued an ordinance in July, 1904, to meet this emergency, which provided that the Bank should be allowed to issue notes convertible into gold and the circulation of the silver yen in Taiwan cease. Since then, the gold notes in circulation have increased to a considerable extent and the silver notes almost disappeared from circulation, so that the Law of the Bank of Taiwan was revised so as to recognize legally the issue of gold notes by the Bank, and the unification of the currency system in the island was thus effected.

The banks above described, namely, the Yokohama Specie Bank, the Bank of Japan, the Industrial Bank of Japan, the Agricultural and Industrial Banks, the Hokkaido Colonial Bank, the Bank of Taiwan, and the Hypothec Bank of Japan, are, as has already been described under their respective heads, banks established, each with its own special object, under Government protection. While they are subject to more or less restrictions due to the objects for which they were respectively established, they enjoy on the other hand privileges more or less profitable, which amply compensate them for the disadvantages of their limited field of business. They are at the same time under special Government control.

NEW PHILIPPINE ROOFING TILE

Mr. H. Thurber, General Manager of the Manila Construction Company of Manila, has patented a double interlocking reinforced cement roofing tile that bids fair to supersede all other kinds of roofing material in the Philippines if not in Eastern Asia. The tile as manufactured by the company covers one-twelfth of a square meter or it takes twelve tiles to cover one square meter of surface. The reinforcing consists of two No. 13 wires and two No. 16 wires. The tile is fastened to the roof by copper wire sufficiently strong to resist the most severe typhoons and, at the same time, allows sufficient movement to give maximum protection from earthquakes. The weight is nine pounds to the square foot and is guaranteed to carry a weight of 175 pounds.

This tile has been adopted as the standard by the Philippine Government and has been approved by the U. S. Quartermaster Department in Manila. It was utilized by the Philippine Government for the entire roofing of the General Hospital, of which the Manila Construction Company are the contractors. Approximately 120,000 tiles were used on this job alone. Besides, tiles have been ordered for the Pandacan veterinary building, the San Fernando Jail, the Medical School, and the Manila Railway Company is using them for roofing on stations along its lines.

The temporary plant is situated on the Philippine General Hospital site, Manila, but arrangements are being made to instal extensive permanent works to meet the growing demand for this most desirable roofing material.

ONE SHIPMENT OF FOUR MILLION PHILIPPINE CIGARS

The manifest of the S. S. *Siberia*, Pacific Mail, registered a consignment of 4,000,000 cigars from Manila to San Francisco. This makes an export of over 6,000,000 since the passage of the Payne Bill. Nearly every tobacco manufacturer was represented in the shipment.

* PHILIPPINE IRRIGATION.—AMBALANGAN-DALIN PROJECT

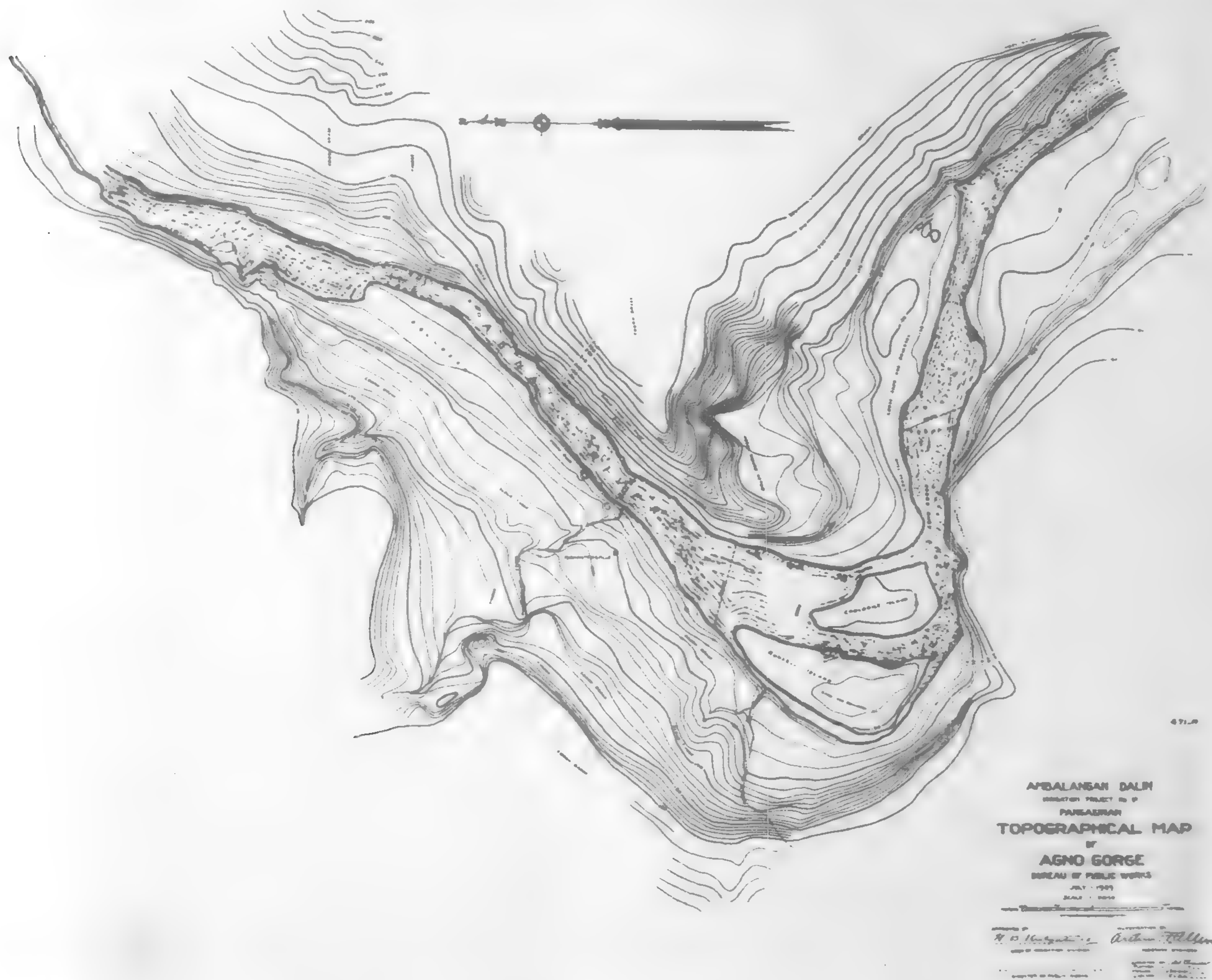
The irrigation movement in the Philippine Islands, initiated by the present Acting Governor-General while Secretary of Commerce and Police, has resulted in the investigation of a number of very desirable irrigation projects. Among these projects one of the largest and most feasible is the Ambalangan-Dalin project in the province of Pangasinan. This project proposes the irrigation of 30,000 hectares of land in the south-eastern part of the province at a total estimated cost of ₱1,000,000.00. This project takes its name from the sitio where water is to be diverted from the Agno River. The irrigation district comprises the lands lying

kind of bean, is harvested. The mongo crop follows the rice and requires little water. It is planted in January and February and harvested in April and May. Any system of irrigation which will insure the rice crop in the rainy season will, for a much higher duty, insure the mongo crop during the dry season.

In designing this project the duty of water has been taken at 1 liter per second per hectare. This is equivalent to a duty of 70 acres per cubic foot per second, which is a low duty in the United States. This duty will deliver to the rice fields one meter deep of water in 116 days which is considered entirely adequate for the

portation facilities, and unfailing crops, the Ambalangan-Dalin Irrigation District promises to be one of the richest parts of the Islands.

Investigation on this proposition was commenced in July, 1906. At that time it was proposed to repair the existing irrigation systems of the district. These systems consist of ditches heading on the Agno River, and taking water either with or without the assistance of temporary diversion works. Canals, which take water direct from the river without the use of diversion works, secure water only in floods and semi-floods. Canals with temporary rock and brush dams get water at much lower stages of the river, but they have the disadvantage that these dams must be rebuilt several times a year. These temporary works have also caused



within the limits of the municipalities of San Manuel, Asingan, Urdaneta, and Villasis, which have a total population of 61,991.

The entire territory is admirably adapted to irrigation. The high grounds commence at the mouth of the Agno Gorge which is the point of diversion for the main canal and slope gently toward the south and east. On account of the slope of the country, no difficulty will be encountered in building canals and taking water to any part of the district. Almost the entire area is now devoted to the cultivation of rice, and the project will have the advantage that all the irrigable lands are now prepared to receive water. In the dry season a crop of mongos, a

rainy season crop. It is not expected that much of the land will be planted in rice during the dry season. Mongos and other crops will be grown in order to give the proper rotation of crops to prevent impoverishing the soil.

Dagupan, the principal market for this district, is reached by a first class road. It is probable that the Manila Railroad Company will extend their Paniqui-Cuyapo branch to Tayug in a short time. This will give better transportation facilities to the district and bring it into direct communication with Manila.

A feature of the proposed system is the possibility of producing electric power at the falls along the main canal. It is estimated that sufficient power can be developed to light all the towns in the district by electricity, and to furnish power for rice mills capable of handling the entire crop. With cheap power, good trans-

considerable trouble in the district. Water users go on the rule of "him that takes, gets." Naturally those irrigators on the lower reaches of the canals have not always had water for their crops, while those nearer the river have had plenty. In a number of instances bolo fights have occurred, and there has been considerable friction between the different municipalities. Another objection to the temporary works was that water was not always available. In times of drought water might be lacking and a large part of the crop would be lost.

In investigating the project these objections were brought out, and a permanent, government controlled system was proposed for the district for four reasons:

- (1) Water would always be available.
- (2) Water could be distributed justly.

* Written for the Review by H. B. Kirkpatrick, Assoc. Mem. Am. Soc. C. E., in charge of the Division of Irrigation, Bureau of Public Works.



- (3) More economical use of water.
- (4) Water would eventually be cheaper than under the present method.

In July, 1908, the present investigation was authorized and field work was begun in October of the same year. It was at first proposed to construct a masonry weir in the river at some suitable point below the Agno Gorge, and then to conduct the water through canals from this weir. Several months were spent in investigating weir sites, but no site could be found where a weir could be built to withstand the terrific force of the floods of the Agno River.

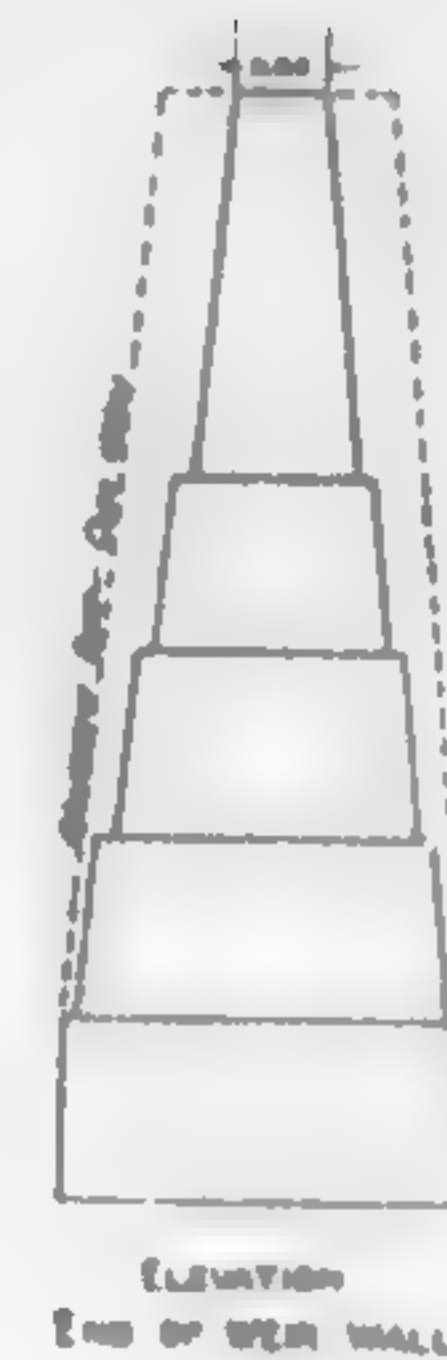
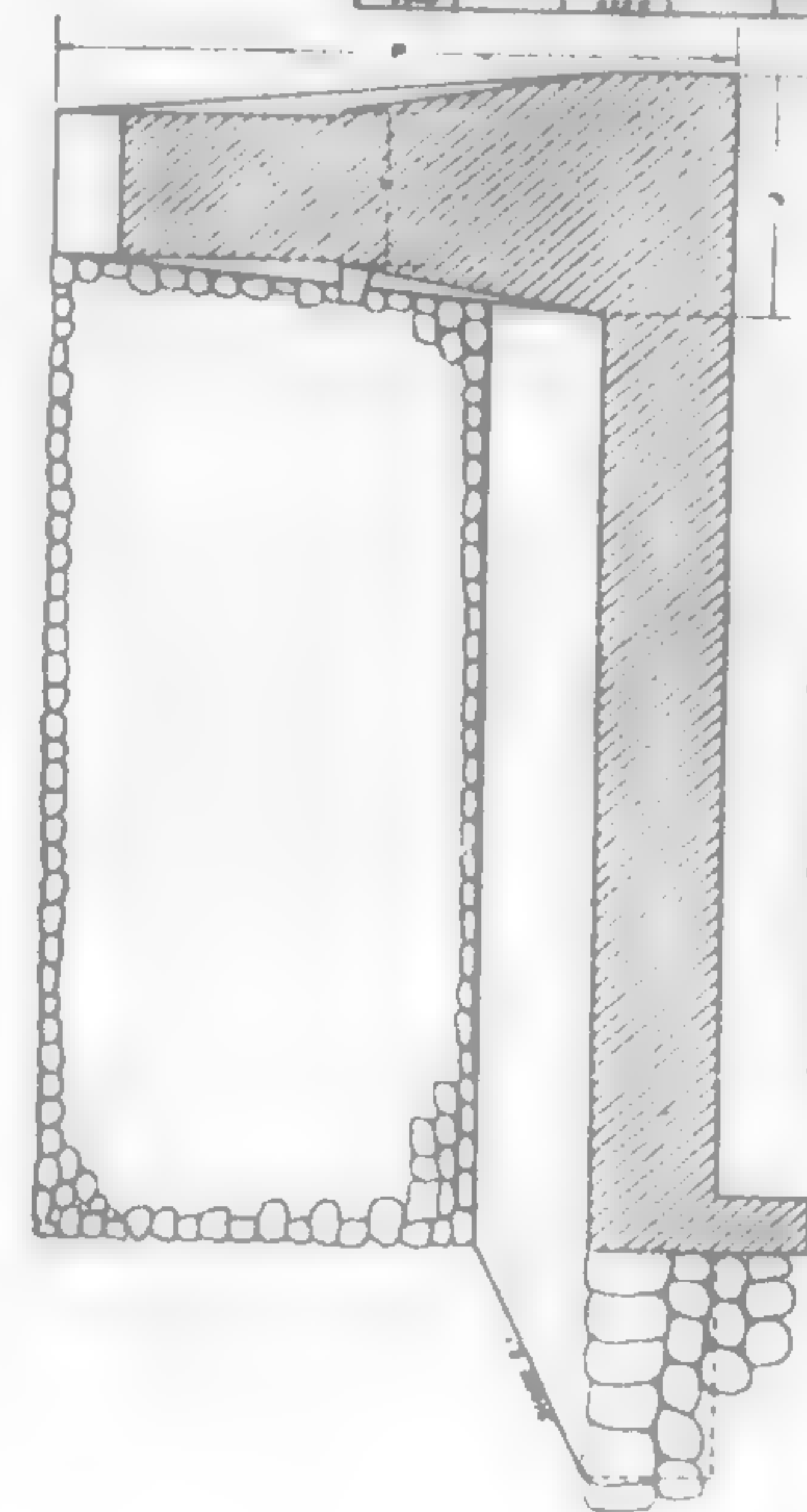
The Agno River is one of the largest on the Island of Luzon. It flows from the central mountains of Luzon in a general southerly direction, and on the plain of Pangasinan its direction changes till it flows north and enters into the Gulf of Lingayen. The mountain catchment area is approximately 1,800 square kilometers, ranging in elevation from about 150 meters to 2,000 meters above sea level. The forests within the watershed are practically untouched, and the slopes of the ravines are well covered with grass and brush. During the rainy season the rainfall on the catchment area may be very heavy and persistent during longer or shorter periods. The rain gage at Baguio shows 625 mm. for October 13th, 1908, and at this time the Agno River showed a 9 meter rise at the foot of the gorge. The river has a minimum flow of about 12,000 liters per second*, and an average flow during the rice season of about 50,000 liters per second. The maximum flood discharge of this river is estimated to be upwards of 8,000 cubic meters per second (8,000,000 liters per second). This large flood discharge was the controlling feature in the design of any structure built in the river, and hydrographic surveys finally developed a condition which would make it possible to disregard the flood effects of the Agno. Attention is invited to the plate showing the topographical map of the Agno Gorge. The river descends from the mountains in a south-westerly direction till it reaches the gorge where it is turned sharply to the left through an angle of more than 90°. The river is deflected to the left by a vertical conglomerate cliff. Some 200 meters below this cliff the river forms a rapid and drops about 4 meters in 200. The general location is such that the river cannot leave the gorge except by passing along the face of the conglomerate cliff; and it is proposed to locate the gate house on the face of this cliff as shown on the plate entitled: Gate House Location. The distorted profile in this map shows in profile the situation described above. The rapids form a natural barrier and will serve as a submerged weir. The natural condition, while not unique in irrigation engineering, is very unusual. No control of the river will be necessary as the gate house is in the deepest part of the pool above the rapids, and water can be taken directly into the conduit.

The gate house will be built against the cliff face, and is protected from the direct force of the current by the upstream part of the cliff. Its walls will be designed to withstand a hydrostatic pressure much greater than the highest flood yet recorded, and will be braced from the rear by the solid cliff. There is no question whatever but that the structure will be safe, no matter how great the flood.

From the gate house water will be taken for 500 meters in a covered, cement lined, conduit. This leads the water away from the river to a point where the canals will not be endangered by floods. Then 3½ kilometers of main canal will conduct the water to the first distributaries. Use will be made of a great many of the present canals, and the distributaries will cover the territory shown in the plate.

The principal structures in the main canals will be falls of the notch type which are extensively used in India. The plate shows the general features of this type of fall. The notch is designed so as to permit the water to pass the falls at varying depths in the canal without checking or accelerating the velocity in the

*1,000 liters=1 cubic meter=approx. 35 cubic feet.

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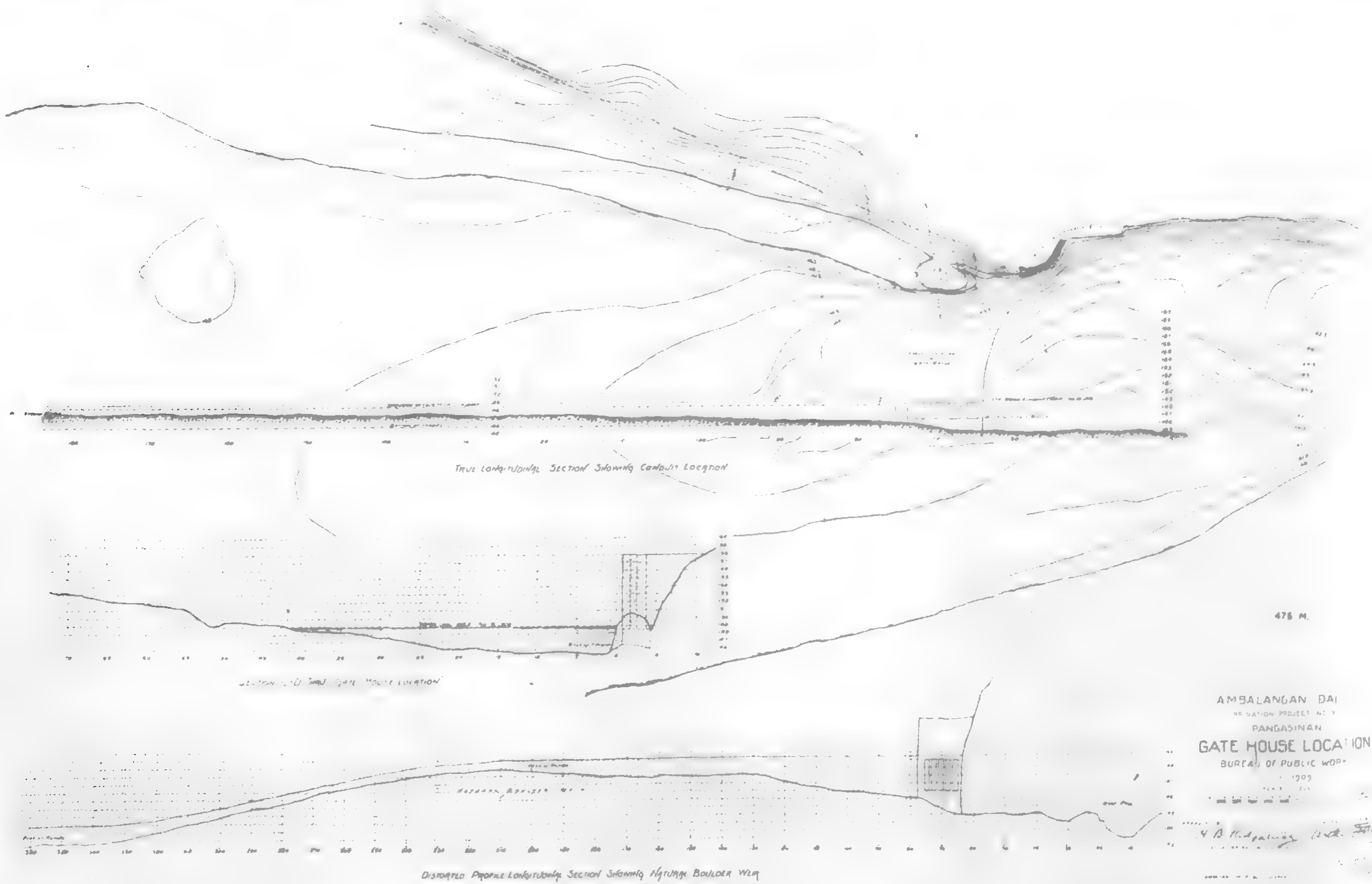
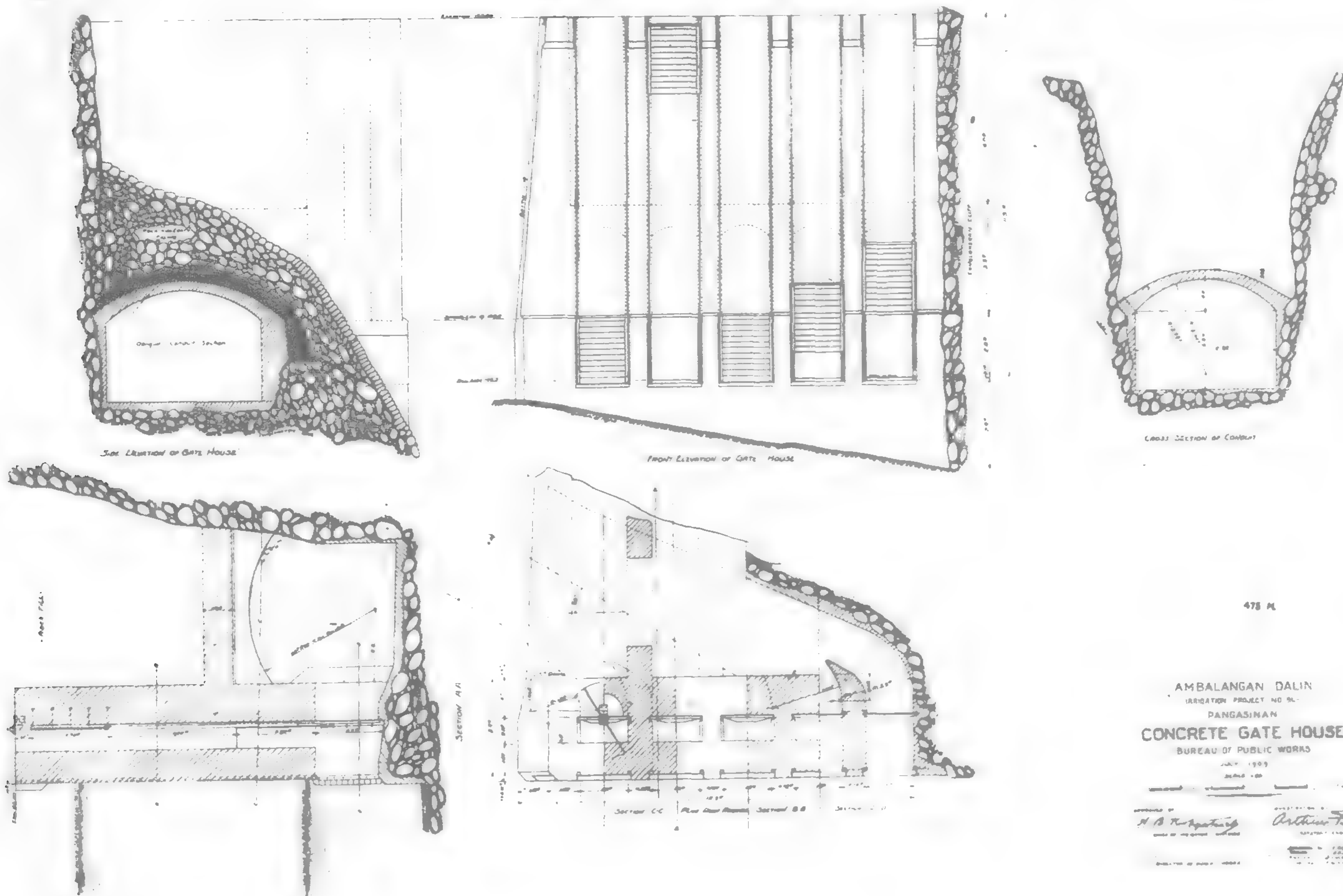
AMBALANGAN DALIN
IRRIGATION PROJECT No. 91-
PANGASINAN
CONCRETE NOTCHED FALLS
BUREAU OF PUBLIC WORKS

JULY - 1904
SEPT 1 - 1904

APPROVED BY
N. B. Kucharsky
CHIEF OF INVESTIGATION

Investigation of _____
Arthur H. Miller
Admiral, U.S. Navy

Author	Year	Country	Sample Size	Method	Findings
Smith et al.	2001	USA	1,200	Survey	High levels of stress and anxiety reported.
Johnson et al.	2003	UK	800	Interview	Significant increase in mental health issues.
Williams et al.	2005	Canada	1,500	Survey	Correlation between economic hardship and mental health.
Chen et al.	2007	China	2,000	Survey	Increased rates of depression and anxiety.
Miller et al.	2009	USA	900	Interview	Long-term effects of economic downturn on mental health.
Lee et al.	2011	South Korea	1,100	Survey	High prevalence of stress-related disorders.
Patel et al.	2013	India	1,300	Survey	Worsening mental health outcomes in low-income groups.
Nguyen et al.	2015	Vietnam	1,400	Survey	Increased psychological distress during economic challenges.
Okun et al.	2017	USA	1,600	Survey	Longitudinal study showing persistent mental health issues.
Almeida et al.	2019	Brazil	1,700	Survey	Significant impact of economic inequality on mental health.
Kim et al.	2021	South Korea	1,800	Survey	Continued high levels of stress and anxiety.
Wong et al.	2023	China	1,900	Survey	Recent study showing ongoing mental health challenges.



canal either above or below the falls. The power stations will be located on these falls which have a vertical drop of from 2.40 m. to 6.00 m. These structures will be built of concrete and in some cases will also serve as bridges. The main canal may be as much as 19 meters wide and have a depth of two meters, so that a number of bridges will have to be constructed.

The principal items of construction are: 8,800 cubic meters of concrete, comprising 1 gate house, 1 closed conduit, 18 falls, 7 escapes, 2 bridges; 18,030 cubic meters rock excavation, and 475,000 cubic meters earth excavation.

The estimates for this project were worked up on the basis of three different sized districts: 10,000; 20,000; and 30,000 hectares: taking 10,000; 20,000; and 30,000 liters of water per second respectively. The final recommendation was that the system should be constructed with permanent structures to take 30,000 liters per second, and canals for 20,000, to serve at first an area of 20,000 hectares. This leaves the system in shape so that it can be extended to cover 30,000 hectares at a reasonable expense. The total estimated cost of the recommended construction is ₱750,000.00. It is estimated that to extend the system to take the additional 10,000 hectares will cost ₱250,000.00 more, making a total of ₱1,000,000.00 for the entire project.

The total assessed valuation of the lands comprising this irrigation district is ₱1,814,630.00. A very conservative estimate places the increase in value of this property with a permanent irrigation system at 50%. This would give an increase in land values of ₱907,315.00. Taxes on this increased valuation would amount to ₱9,000.00 a year, and it is probable that the actual increase in value will be nearly double the above. The present production of palay (rice in the husk) is about 50 cavans (75 liters) per hectare, and the average value is ₱2.50 per cavan, making ₱125.00 the present gross return per hectare from palay. It is estimated that the minimum increase in production due to controlled irrigation will be 30%; on the above estimate the increase in value of products will be ₱37.50 per hectare per year for rice alone. For 20,000 hectares the increase would amount to ₱750,000.00 per year or the cost of the system. A water rate of ₱5.00 per hectare per year will pay all expenses of operation and repay the cost of construction within 20 years.

The final reports with recommendations have been submitted to the Irrigation Committee. The subcommittee on engineering of that committee has reported favorably on the project, and it is believed that the Secretary of Commerce and Police will authorize the construction of the project. Construction work can then be commenced as soon as the details regarding the reimbursement of funds are settled.

PHILIPPINE COAL

The Chief of the Division of Mines, Bureau of Science, Mr. Warren D. Smith, has issued an interesting pamphlet on the development of coal fields in the Philippines that indicates a promising future for the coal mining industry there.

Activity is confined to the fields on the Island of Batan situated off the East coast of Albay Province. Of this interest, he writes: "We find here the coal mine of the United States Army on the west end and on the east the Batan Coal Company's property. The former is producing 80 tons per day, the latter 50 tons.

"There is a marked difference in the coals of the two fields, the coal of the Army mine on the west end being somewhat better, but more difficult to mine, while on the east end it is just the reverse. Development work has corroborated the prediction made in 1905 that considerable faulting would be found on the west end of the island. This may seriously embarrass the operations there. At any rate, it will call for the most experienced engineering ability. As this work is a matter entirely separate from any civil or private enterprise, I do not feel called upon to discuss the situation further.

"An important feature in the growth of coal mining in the Islands is the coaling of the U. S. A. transport *Dix* for her trip to Seattle. During

the past year the interisland transport *Wright* has been using this coal with good results, but the *Dix* by taking on 2,500 tons in April marked the first use of Philippine coal on a trans-Pacific steamer.

"The East Batan Coal Company's mine is the first since the American occupation to furnish coal to the general market and the first successful coal property in the whole history of these Islands. This mine was visited in March, 1909, by Mr. H. G. Ferguson, geologist of this Bureau, to whom Mr. Daniels, the superintendent, kindly furnished the information given in this paper.

"The property is situated in the eastern part of Batan Island, which is just 19 kilometers east of the port of Legaspi in the southern part of Luzon.

"This mine is located within a few hundred meters of the barrio of Batan and approximately 210 meters from the sea. The outside plant

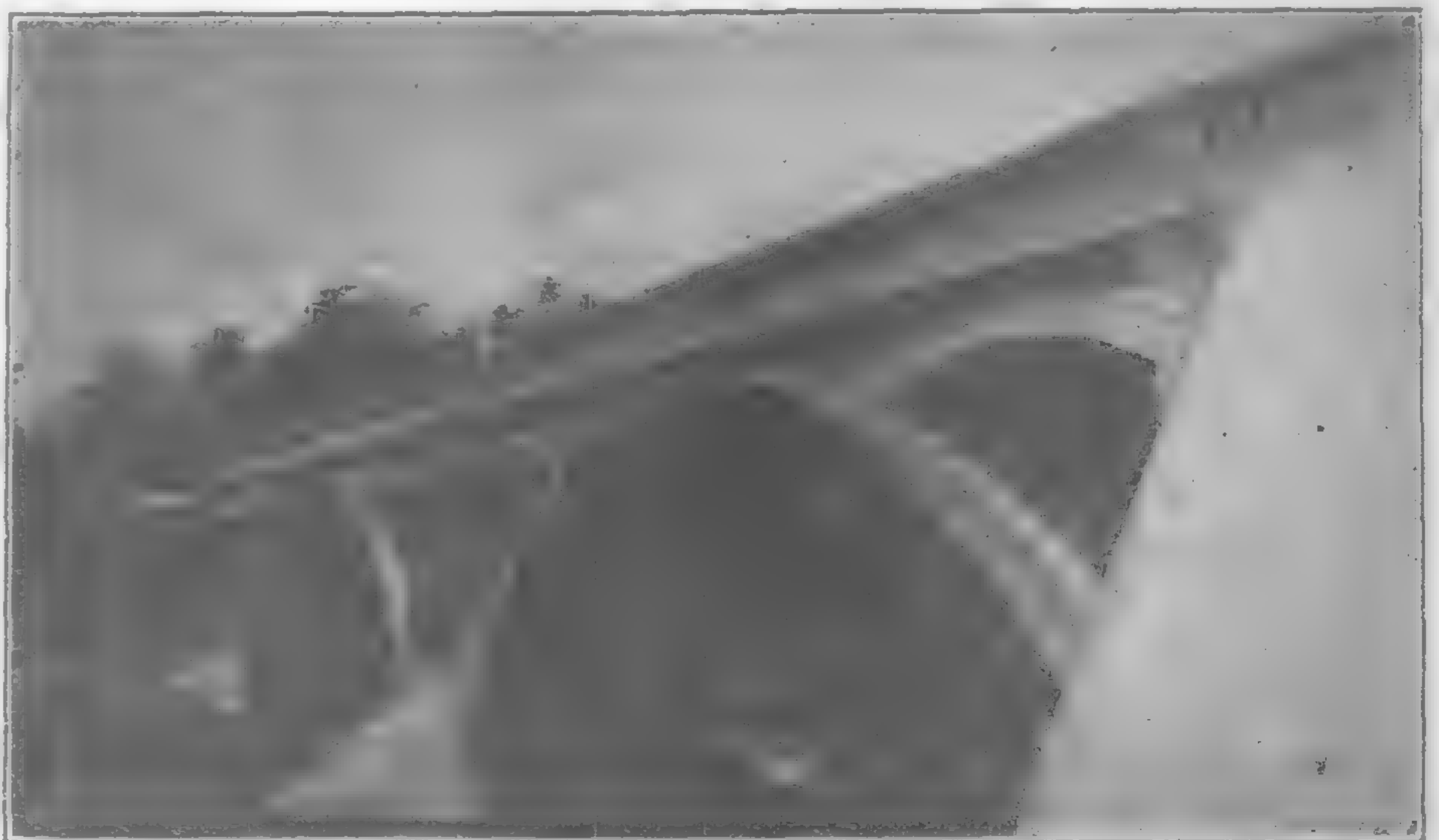
Filipino helpers.....	1.00
Surface laborers.....	.80

"There was some difficulty with the labor at first, but now there is none. The Filipino laborers are all Bicolos from the surrounding country, and have proved steady workers.

"Narra has been found to be most satisfactory timber available.

"Preliminary work was begun in October, 1906, in this mine. The first shipment of coal was 77 tons in the bunkers of the San Juan. The production up to date amounts to 15,000 tons approximately. At present only one shift is working, giving a daily output of 45 tons.

"In this district only the uppermost seam is being worked. From the general relations which obtain over Southern Luzon and the Visayas, I feel safe in predicting the discovery of at least two more and perhaps considerably thicker seams below this one. I feel confident



ANOTHER VIEW OF GOVERNOR REYNOLD'S PARABOLIC ARCH BRIDGE, ALBAY, P. I.—
REINFORCED CONCRETE CONSTRUCTION

in March, 1909, consisted of one 30-horsepower. Sedgwood doubledrum hoisting engine and boiler. The cars are hoisted from the tunnel and run down by gravity on a small track to the sea, where the coal is loaded into lighters, in which it is conveyed out to deep water beyond the reef to the ship's side. A new wharf, 91 meters long with 7 meters of water at low tide alongside, is nearly completed. A stock pile will be placed about 300 meters from the wharf end and will be located at about 600 meters from the tunnel. Two small steam locomotives are used now.

"Coming now to the underground work, the coal seam varies from 1.67 to 1.75 meters, with 7 to 12 centimeters clay parting 55 centimeters from the roof, and dips 13° to the north. The roof is a hard, sandy clay and stands remarkably well with only a slight tendency to slap off in the first half meter.

"There are two adits and three air shafts. The system adopted is the room and pillar, with the rooms running up the dip 4.5 meters wide, and 90 to 120 meters long, with 15-meter pillars. The coal is sometimes worked 15 meters beyond the timbering. The west gallery is 243, and the main tunnel 198 meters.

"Wire haulage is used in the main tunnel, but cars are pushed by hand in the rooms. Rails are soon to be laid right up to the working face.

"The coal is easily broken from the face by working up the dip. Coal cutting machines are not required. The coal breaks evenly from the clay and possesses a good cleat. All sorting is done underground. Japanese pickers were originally solely used, but the natives have been trained and have been found entirely satisfactory. They can win from 5 to 7 tons per day. Japanese are now used mainly for timbering and advancing main tunnels.

"The scale of wages is as follows:

Japanese foremen.....	₱2.50
Filipino pickers.....	1.20

that the entire eastern end of this island is underlain by workable, merchantable coal.

"A good feature in the working of this mine is the absence of dust. Dust has been found to be one of the most potent factors in mine explosions. So large a part does it play that in Europe all dry coal mines are required by law to be constantly sprinkled. Here, of course, this is not necessary.

"In order to show in as concise a manner as possible the steaming value of this coal, I reprint here the statements of the engineers of two coastguard cutters, the Busuanga and the Negros.

"Relative merits of Australian and Bataan coal based on tests during two months' use of each, cutters Busuanga and Negros.

	Australian.	Batan.
Miles steamed (two mos).	5,662	5,442
Tons coal consumed steaming	229	348
Total cost of coal consumed.....	₱3,744.15	₱2,088.00
Cost per mile steaming...	.66	.38
Cost per 1,000 miles steaming	660.00	380.00

"Compared with Australian coal, Batan coal burns freer, requires light and frequent firing, and but little attention. It gives hardly any soot in tubes and connections and little clinker. It disintegrates very rapidly after being spread on fires and quite a percentage is lost if used on coarse grates.

"It is seen that about 50 per cent more of the Batan coal is required for a given run, but the cost is just a trifle more than half that of the Australian, so that when bunker space is available a saving can be made by using Batan coal.

"On Cebu Island the mine of the Insular Coal Company was in operation during a part of the year. At present, however, the mine is closed down, though the company is hoping to reopen it in the near future."

FAR EASTERN RAILWAY NEWS

THE ANTUNG-MUKDEN RAILWAY.—The following agreement has been reached in regard to the reconstruction of this railway according to official announcement:

1. The same gauge as that of the Peking Mukden railway shall be adopted.
 2. Both Japan and China shall recognize and approve on the whole line as already surveyed and agreed to by the commissioners of both Governments, but the location of that portion of the line, from Chen-Hsangtung to Mukden, shall remain to be decided by mutual conference between the two countries.
 3. From the date when the memorandum is signed, negotiations for purchase of land and for adjustment of all other details shall be instituted.
 4. From that time, the day following the signing of memorandum, this is from the day after the negotiations above mentioned are instituted, the work of the reconstruction shall be accelerated.
 5. China shall instruct local officials along the line to give every facility regarding the execution of the work.
- The traffic on this line was interrupted last month by serious inundations.

THE PAKNAM RAILWAY COMPANY LIMITED.—The report for the half-year ended June 30th gives the information that the gross receipts were Ticals 90,900.82 and the expenses Ticals 33,519.53, leaving a profit of Ticals 57,381.29. The mileage for the term is placed by the report as 31,029 kilometers and 313,925 passengers were carried. During the 18 years' history of this company dividends to the amount of 158.03% have been paid the shareholders.

FORMOSAN RAILWAYS.—The government railways in Formosa include about 271 miles of line, the main road connecting Takow and Taihoku, a distance of 228 miles, the balance being branches from Takow to Kyukyudo, a distance of 10 miles; from Taihoku to Keelung, 18 miles, and from Daitotei to Tamsui, a distance of 14 miles. A line is being surveyed from Taito on the East coast to join the main line on the west coast and its construction is expected to cover a period of over seven years. Besides these lines there are still in operation about 160 miles of narrow gauge, coolies being employed as motive power. These run into many isolated districts and formed the earliest means of transportation. At one time they stretched from one end of the island to the other. Then there are the sugar estate lines of a broader gauge than the coolie lines, the motive power being bullocks or steam. There is over 350 miles of this track of which about 90 miles may be used by the public.

STEAMER CONNECTION WITH CHINESE RAILWAYS.—The proposal of the Board of Posts and Communications made to the China Merchants Steam Navigation Company to arrange connections with the Peking-Mukden Railway at Newchwang, the Peking-Kalgan at Tientsin and the Shanghai-Nanking and the Peking-Hankow at Shanghai is being favorably considered. The proposal includes the sale of tickets by the company to all points on the different lines.

BURMA-YUNNAN PROPOSED RAILWAY.—With the conclusion of the loan agreement which assures the early construction of the Szechuan-Hankow line, the construction of a railway connecting China and India is again being discussed by the British Press. The most favorable scheme is the construction of a line connecting Lashio to Kunlong by the Burma Government. Then the construction of a line from Kunlong to Youchou-fu, a distance of 145 miles, which would cost about \$10,000,000 by the Yunnan railway to run along the Yunnanfu-Talifu line and meet the French line at Yunnanfu.

THE HSI-NING RAILWAY EXTENSION.—It is reported from Peking that permission has been granted to extend this line to Humen

thus making Tungkiang more accessible to trade.

F. M. S. RAILWAYS.—The total amount under capital account for open line of the Federated Malay State Railways at the end of 1908 was \$46,000,000, approximately, and the number of miles open to traffic 468. The working expenses were 67.81% of the receipts.

JAPANESE ROYAL FAMILY'S INTERESTS IN PUBLIC UTILITIES.—The shares and bonds in banks, railways, steamship companies, etc., owned by the royal family of Japan are valued at \$79,680,000, and lands and houses at about \$200,000,000, to which should be added imperial palaces and other buildings and grounds in 253 places.

THE CHANG-CHOW-AMOI RAILWAY.—The delay in the construction has been the subject of official notice at Peking and recently orders were issued that the construction now in progress in a dilatory manner should be pressed. This line, when completed and extended to join the different lines connecting with the Peking-Hankow, will connect Amoy by railway with Europe. The line proposed will ultimately be connected with the Kowloon-Canton, Canton-Hankow, Shanghai-Nanking when continued North and South.

THE ANTUNG-MUKDEN RAILWAY RECONSTRUCTION.—The report of Mr. Palen, Acting Commissioner of Customs at Antung, is of interest in reviewing the proposed line as contemplated reconstructed by the Japanese Government. He says in part:

"Without question that feature of Antung's commercial horoscope which reads truest is the prediction of growing importance to follow upon the conversion of the light railway to Moukden into a standard gauge road and the construction of the bridge across the Yalu, which will link up the Korean system with the iron roads of Asia and Europe. The Japanese officials of the South Manchuria Railway Company state that the loan of £2,000,000 recently floated in London will be immediately devoted to this reconstruction work and that the final surveys for the new roadbed are already being made. The general plans sanctioned provide for a northern terminal at Sukiatun, the station on the main line of the South Manchuria Railway, 10½ miles south of Moukden, which also serves as the junction with the line to the Fushun mines. This will give the road a total length of 170 instead of its present 188 miles, and will also save the expense of another bridge across the Hun River. It is likewise proposed, in order to cater to passenger traffic, to retain as much of the scenic beauty of the present line as engineering considerations will permit. The railway officials say that active work will be started in the early spring and that the remodelled line should be completed in three years, that is, during the spring of 1912. From the Korean Railway officials emanates a simultaneous report with reference to the proposed bridge, to the effect that operations thereon will be begun after the summer rainy season has passed, and that the bridge should stand complete by the time the new Antung-Moukden rails are laid."

The line will cost approximately yen 24,000,000. There will be tunneling covering in all a distance of about six miles divided into 30 sections. There will be about 175 new bridges aggregating in length about 4.5 miles. The line will be dotted with about 20 stations. It is estimated that in traveling from Mukden to Moji, when the line is completed, a saving of 31 hours will be made compared with present speed.

For construction purposes the line will be divided into 14 sections and the reconstruction will cover a period of less than three years. It is proposed to manufacture all the steel in Japan and Japanese sleepers will be used. Labor is to be secured along the line. The materials and equipment of the old line will be

utilized by the South Manchuria Railway Company in connection with the operation of the Yentai and Fushun Collieries.

INDIAN RAILWAY PROJECTS.—The Railway Board have sanctioned surveys being made by the Agency of the Burma Railways Company for lines of railway on the metre gauge in the Irrawaddy Delta as follows: (1) Henzada to Pantanaw, 65 miles, (2) Ngathaingyaung to a suitable point on the Myogwin-Kamausku, 27 miles, (3) Kyontani to Ngathaingyaung, 27 miles, (4) Henzada to Akyaw, 28 miles total 47 miles. These surveys will be known as Irrawaddy Delta Surveys.

The Secretary of State has sanctioned the construction, when funds are available, of a railway on the metre gauge from Thazi to Yawnghwe in the Southern Shan States, a distance of 100 miles. The main object of the line is to open up and develop the fertile valleys and plateaus of the Southern Shan States, the progress of which has been much retarded for want of communication.

Sanction has been accorded to an estimate for the final location survey of the Hosur extension of the Merappur-Dharmapuri Railway. Also sanction has been accorded to an estimate for the construction of a narrow gauge tramway at Perambur Works, Madras and Southern Mahratta Railway.—*Railways.*

OLD MANCHURIA ROLLING STOCK.—The Nippon Sharyo Seizo Kaisha and the Kawasaki Dockyard have been awarded the contract for the repair and reconstruction of the cars and locomotives included in the old rolling stock of the South Manchuria Railway and which was removed to Japan. Besides this repair work, it is announced that these firms have received contracts for the construction of 200 passenger and other cars to be completed during the year. This work as estimated will cost about yen 2,000,000.

CONSOLIDATION OF CHINESE RAILWAYS.—The President of the Board of Communications is interested in the consolidation of the management of the Peking-Mukden and the Peking-Hankow Railways. He has appointed a committee to make an investigation into the feasibility of the scheme.

JAPANESE RAILWAY SLEEPERS FOR AMERICA.—The Santa Fe Railway recently ordered a shipment of 170,000 sleepers of Japanese oak for trial on the Kansas Division. The cost laid down is about \$2.00, but owing to the durability of the timber which is said to last for 25 years, these sleepers are said to be more economical than American timbers.

THE KIRIN-CHANGCHUN RAILWAY.—The following memorandum was recently given out officially in regard to an agreement reported to have been concluded between the Japanese and Chinese Governments with reference to this proposed railway:

- 1, that the Engineer-in-Chief and Chief Accountant shall be Japanese; 2, that the agreement shall hold good for twenty-five years, during which period the line shall be worked by the Chinese and Japanese jointly; 3, that the cost of the railway, which is estimated at Tls. 2,500,000, shall be entirely borrowed from the Japanese and the interest thereon shall be five per cent. per annum, computed from the day when the whole sum is paid to the Chinese; and 4, that the receipts of the railway company shall be deposited with the Yokohama Specie Bank in China.

STANDARD GAUGE FOR JAPAN'S RAILWAYS.—The announcement is made semi-officially, that the Japanese Railway Bureau is contemplating the widening of the railways in Japan and that an announcement of the plans of the Bureau will be made during the present year. This extensive scheme of reconstruction was contemplated at the time that the nationalization was originally proposed and it is thought that the plans have sufficiently advanced to under take it.

THE CHEKIANG RAILWAY.—President S. C. Fang is in receipt of a very complimentary report on the construction of this railway by an American engineer who has been studying conditions and railway construction for his principals in the United States. He directs special attention to the cost of Tls. 60,000 a mile, which is much less than western cost, while the character of construction he reports superior to the initial construction on American lines. On bridge construction, the work satisfied him as being along the latest and best engineering ideas. He directed particular attention to the cheapness of the earthwork which he claimed cost about one-tenth of the outlay in the west. He paid a high compliment to Mr. T. C. Pu, the executive secretary, as an engineer.

SOUTHERN SECTION OF THE SIAM ROYAL RAILWAYS.—The Ministry of Public Works has been directed to continue the work of construction on the Petchaburi Railway southward to Rangoon. It will be known as the Royal Southern Railway.

KOWLOON-CANTON RAILWAY CONSTRUCTION.—The latest reports from Hongkong are to the effect that construction on the foreshore between Hunghom and Tsimshatsui is progressing very favorably and that from indications everything will be ready for the opening of the line next year. A temporary line will no doubt be operated as soon as the filling and leveling is completed and until the permanent way is under way. The authorities have decided to construct modest stations until the results of operation are made definite.

TRANS-SIBERIAN FREIGHT TRAFFIC FROM THE FAR EAST.—The Russian Ministry of Finance is reported to have authorized the exemption from duty of all freight between China and Western Europe from a frontier station on the Siberian Railway to any frontier station in European Russia. It is expected that this will encourage the transport of goods over the Siberian lines.

SOUTH MANCHURIA RAILWAY WINTER FREIGHT SCHEDULE.—This company proposes arranging the schedule so as to increase the carrying capacity of the road to 8,000 tons a day. This is an increase of about 1300 tons daily.

KOREAN RAILWAYS.—The estimated cost of construction of the Seoul-Gensan and the No-Nam Railways is placed at yen 45,000,000 and arrangements are to be made to have the sum raised so as to be redeemable in six years.

MONGOLIA TRUNK LINE.—A scheme is being entertained by the Ministry of Posts and Communications to construct a trunk line connecting Ili and Tsitsihar which will serve as a main line for feeders from Mongolia and Manchuria.

KIANGYIN-WUSHI MILITARY RAILWAY.—The Board of War has taken up this proposed construction with the Board of Communications.

PEKING-KALGAN RAILWAY EXTENSION.—The Board of Communications has recommended the extension of this line to Suiyuanhing in the extreme north-western point in Shansi by way of Tatungfu and Sopingfu. The cost is estimated at approximately Tls. 60,000,000 and it will take eight years in its construction. It is recommended that the cost will be supplied from the earnings of the Imperial North China Railways.

KIRIN-KUANGCHENGTE RAILWAY AGREEMENT.—The following is semi-officially reported as being the text of the agreement entered into August 18th at Tientsin between Japan and China in regard to the construction of this line:

(1) The South Manchuria Railway Company agrees to advance to the Chinese Government a sum of Yen 2,250,000 (the actual amount receivable by the Chinese Government is 93 per cent.), half the amount of the expenditure required for the construction of the Kirin-

Kuangchengte Railway, and also a sum of Yen 320,000 (93 per cent. receivable by China), half the amount of the expenditure required for the reconstruction of the Hsinmintun-Mukden Railway.

(2) The money to be advanced shall be paid in Tokio within one month from the date of the signing of the agreement.

(3) The Chinese Government, with as little delay as possible, shall appoint a commissioner to receive the money.

(4) The money earned by the Kirin-Kuangchengte Railway shall be deposited with the Manchurian branch of the Specie Bank, the amount so deposited being exclusively in currency accepted by the bank.

(5) The Specie Bank shall pay interest on the money deposited at the same rate as is paid on general deposits.

(6) The Chinese Government agrees to repay the money advanced for the construction of the Kirin-Kuangchengte Railway in twenty years after outstanding five years, and the money advanced for the reconstruction of the Hsinmintun-Mukden Railway in eighteen years from the year in which the agreement was signed. In each case, the payment is to be made in half yearly instalments commencing in the first year of the first year of the periods mentioned.

(7) The money in this agreement shall be paid in Japanese currency.

(8) In the event of either of the parties infringing the agreement, the arbitration of a third party shall be sought.

OBSTACLES TO TRADE WITH CHINA

CONSERVATIVE OBJECTIONS TO MINING IN THE EMPIRE.

(From a Special Correspondent.)

The history of the intercourse of the West with China has been nothing but a record of a continuous struggle to open up land and develop trade with a people who seem impenetrable to all influences from outside. And in a journey through China nothing more than this strikes the traveller, a studious discouragement of mining enterprise.

In nearly all the provinces it is known that the presence of minerals offers opportunities for their development, and even in Szechwan, the great agricultural province of the Empire, among the minerals are gold, silver, cinnabar, copper, iron, coal and petroleum, and yet they are not worked much, and if at all merely by the bungling native methods. Perhaps, however, it will be Szechwan that will become opened up in this respect more speedily than any other province, should the steamship service for the Upper Yangtze, said to be on foot to start in October next, become an accomplished fact.

The Chinese Government has, however, a mistrust which is traditional to all enterprises carried out by private initiative. It is nothing but a scandal that at Ichang, 1,000 miles from the sea, from Shanghai, steamers should be driven to burn Japanese coal when Ichang is situated on what is thought to be one of the richest coal fields in the world. It is, it is true, worked to a small extent at Patung, in the Kweichow and Hsingshan districts on the border of Szechwan, in the Itu and Chihchiang districts, and at Ching-men-chou, but the output is not one-half what it would be with foreign methods. Much of the coal is sulphurous, as I found out the other day when I had the privilege of going over one of these Chinese mines.

There is without doubt a good deal of iron over a wide area throughout the Empire, one of the most successful mines worked by the Chinese being that at Kuanpao in the Ch'angyang district, about a hundred miles west of Ichang; but, again, the total output is small, as local needs around the district of which Ichang is the centre are supplied from Hunan. The province of Kwangsi is known to offer a great field for mining also—the great possibilities are, however, unproved to any extent. However, a geologist stated a short time ago that within one square mile he found, by boring, coal, iron, copper and lead, a richness probably unsurpassed by many individual square miles in the world. In addition to these minerals, others known

to exist are gold, silver antimony, asbestos, bismuth, and so on.

The following résumé of the latest approximate figures procurable and the returns in 1867, the first year of the Chinese Imperial Customs and more recent times, is interesting.

Metals in 1867 were valued at 1,630,351 taels, a little over two per cent of all imports, and a couple of years ago at roughly 46,500,000, no less than ten per cent of the whole. Copper imports reached 11,150 piculs (198,017 taels), and now they are not much less than 986,000 (say 32,000,000 taels.) Lead (57,780 and 144,000 piculs) is wanted chiefly for packing tea, and tin (32,000 and 55,000 piculs) chiefly for making tin-foil and those paper simulacra of silver bullion which are offered so profusely in religious worship, specially at the ancestral tombs. Tinned plates in 1867 amounted to 1,744 piculs, and to-day this figure is swelled to something approximating 182,500 piculs, in addition to a considerable quantity of second-hand plate coming as lining tin cases containing piece goods, kerosene oil and other commodities. China is a land of poverty and thrift, and the quantity of this latter is estimated at not less than 500,000 piculs a year. If it is to be taken that the index of industrial progress is the consumption of iron and steel, then China is after all moving on in the great progressive march of the world. Imported into China in 1867 were 7,000 tons, and this has gone on now to the tremendous figure of no less than 162,000 tons, and probably more. This is extremely satisfactory, but it contains another indication of the thriftiness—and poverty—of the people. This last figure is probably made up by almost one-half of old iron, plate cuttings, and so on, discarded from Western markets, coming mainly from Great Britain.

So it will be seen that the country is going ahead in the consumption of minerals and metals, but it is the one thing against her many admirable commercial capabilities that she keeps back mining. Trade in general, and mining in particular, cannot be left to take care of themselves in China as they could be in the West, and I think it is to the interest of all Governments now concerned—and very few are not; China is safeguarded with so many international treaties that no country can prey upon her if they would—in the improvement of trade and the prosperity of mining, railroads and manufactures to do their utmost to bring about an alleviation of the prevailing conditions. I do not lose sight of the fact that Britain especially has been pounding away at the Chinese Government more or less successfully for the last thirty or forty years—notably since the Chefoo convention in 1876—and nothing seems to have come of it, but whatever progress has been made has been due to pressure, and only by pressure will any concession be obtained. In a conversation with an enlightened Chinese official the other day, he gave it as his opinion that to do anything the pressure must be kept up. We all know how little the Chinese, despite the great "awakening" now being talked of, will do of herself; she will do absolutely nothing. However, it is generally thought that it is merely this enforced pressure by foreign Governments upon the Chinese officials—who can be urged—to enforce them loyally to carry out their obligations to promote trade and open their land, that any reform can be looked for. It must be remembered that it requires an energy to do this in spite of disheartening effects of the perpetual procrastination of the Government and of the people.

Should this come about, there will be in Asia such a field for the outlet of European and American capital and brains that China must forge ahead and soon become what is predicted for her two hundred years to come—the greatest nation in the world. But as it stands no foreigner is allowed to have much to do with the mines and the natives are prevented from working on a large scale even if they would, owing to the dread the mandarins have to any assemblage of unruly men such as miners are supposed to be. So the mineral wealth of the country lies undeveloped, while thousands of able-bodied men go about begging their bread. And another very weak excuse is that the minerals would be used up.

FAR EASTERN COMPANY REPORTS

SINGAPORE COLD STORAGE CO., LTD.—This company paid a dividend of 10% for the year.

MAATSCHAPPIJ TOT MIJN-, BOSCH-EN LANDBOUWEXPLOITATIE IN LANGKAT.—A third quarterly dividend of Tls. 12.5 for 1909 account was payable on September 15th.

ILOILO ICE AND COLD STORAGE COMPANY.—This company paid a dividend of 22.25% for the six months ended June 30th.

THE TAINAN SUGAR MANUFACTURING CO.—The following accounts were submitted and recommendations for distribution of profits approved:

	Yen.
Net gains.....	500,200
Brought forward from previous term.....	18,666
Total.....	518,869
To legal reserve.....	27,000
To redemption fund.....	12,000
To special reserve.....	80,000
To bonus.....	80,000
First dividend (10% per annum).....	77,933
Second dividend (10% per annum).....	77,933
To pension.....	10,000
Carried forward.....	46,000

UNITED ASBESTOS ORIENTAL AGENCY, LTD.—This company paid a dividend of 15% on ordinary shares for the 12 months ended May 31st, 1909.

SIAM STEAM NAVIGATION COMPANY, LTD.—This company paid a dividend of 5% for the last half year and carried Ticals 10,000 to the Reserve.

MEIJI FIRE INSURANCE COMPANY.—This company paid a dividend of 2% for the half year term. The Nippon Fire Insurance paid a dividend of 15% per annum for the term.

HONGKONG HOTEL COMPANY, LTD.—The profit for the half year ended June 30th, 1909, amounted to \$19,272 out of which a dividend of 2.40 a share was paid on the old shares and 40 cents on the new shares.

THE SABAH STEAMSHIP COMPANY, LTD.—The annual meeting of this company was held August 26th. The profit for the year amounted to \$6,235.13 out of which a dividend of 6% was paid.

SHANGHAI COTTON MANUFACTURING CO., LTD.—The profit for the term was Tls. 183,853, out of which a dividend of Tls. 7.50 a share was paid, Tls. 22,676 were written off for depreciation and balance of Tls. 24,210 were carried forward.

HONGKONG ELECTRIC TRACTION COMPANY, LTD.—The net profit for the year amounted to £9,506, which added to balance forward from former term made £10,036 which was carried forward.

HONGKONG ICE COMPANY, LTD.—This company declared an interim dividend for the half year ended June 30th of \$2 a share payable August 25th.

CHINA LIGHT AND POWER CO., LTD.—The following is the report submitted at the meeting of shareholders on September 11th:

The balance at credit of Profit and Loss Account is \$446,483.42, which it is proposed to deal with as follows, viz:—To place to Reserve Fund \$400,000.00, and carry forward to next account \$46,483.42.

The concession for lighting Canton together with the Factory, property and material there, was sold to the Ta Ching Kwang Tung Electric Supply Co., for \$1,330,000.00. Payment was completed on 31st July, to which date the present accounts are made up.

It is obvious from comparing the figures of the last account with those now laid before

you that, owing to circumstances beyond our control, we were losing ground at Canton and, in view of this and other considerations, we decided to avail ourselves of the opportunity of disposing of this branch of the business at what we consider a fair price. We shall now have to devote all our attention to the development of the Kowloon Factory.

Capital.—It is not proposed to pay a dividend, but to make a return of capital to the extent of \$5.00 per share, or \$500,000.00 out of funds in hand, but this cannot be done until the necessary resolutions, which are now being drawn up, have been passed and the consent of the Court obtained.

Consulting Committee.—In accordance with the Articles of Association Sir Paul Chater, C.M.G., Dr. J. W. Noble, and H. P. White Esq. retire but offer themselves for re-election.

Auditors.—The accounts have been audited by Messrs. W. H. Potts and A. O. D. Gourdin, who are recommended for re-election.

JAPAN INDUSTRIAL BANK.—The following is the report and recommendations submitted for the term:

THE ACCOUNTS	Yen.
Profit in this half year.....	2,112,902
Transferred from last half year.....	63,823
Total.....	2,176,725
Losses in this half year.....	1,251,277
Net Profit.....	925,448
Reserve fund for losses.....	109,000
Reserve fund for losses balancing the dividends.....	27,000
The First Dividend (5 per cent, per annum).....	406,250
Bonus for the directors.....	25,000
The Second Dividend (3 per cent, per annum).....	243,750
Special Reserve fund.....	50,000
Transferred to next half year.....	64,448
Total.....	925,448

HOKKAIDO COLONIZATION BANK.—The following is the statement of accounts and recommendations made for the half year:

	Yen.
Receipts.....	219,950
To reserve against loss.....	22,000
To reserve for equalization of dividend.....	11,000
Special reserve.....	310,000
Dividend (9% per annum).....	112,400
Carried forward.....	44,550

BANK OF INDO CHINE.—A dividend of 25 francs per share for the half year was paid making in all 50 francs for the year against 47.50 for 1907.

SINGAPORE ELECTRIC TRAMWAYS COMPANY.—After charging out debenture interest, depreciation and royalty out of a surplus of £24 294, the accounts for the year show a loss of £4,040.

THE HONGKONG AND WHAMPOA DOCK COMPANY, LTD.—The ordinary half-yearly meeting of shareholders in the above company was held at noon on Aug. 23, in the company's offices, Queen's Buildings. The Hon. Mr. W. J. Gresson presided and there were also present Sir Paul Chater, Messrs. H. P. White, D. W. Craddock, W. Helms, J. W. Bandow, E. G. Barrett, S. Silverstone, H. A. Siebs (directors); W. Wilson (Acting General Manager), G. A. Caldwell (Acting Secretary); H. W. Slade, W. E. Clarke, J. Cox-Edwards, H. G. White, A. Ough, D. Macdonald, E. C. Wilks, W. H. Wickham, J. A. Chinoy, Choa Leep Chee, J. W. C. Bonnar, R. Mitchell, A. V. Apcar, J. P. Braga, H. Percy Smith, Ho Fook, K. Sayce, Ho Lu, Cheung Pui Kai, H. M. H. Nemazee, Chau Siu Ki, etc.

The Acting Secretary having read the notice convening the meeting, the Chairman said:—Gentlemen, the report and accounts having been in your hands for some time, with your permission I will follow the usual custom and

take them as read. Your Directors regret the unsatisfactory result of the six months' working, the profit earned being less than for any period since the latter half of 1889. This unfortunate result may be attributed to the keen competition now experienced, and the consequent narrowing of margins of profits, also to the prevailing depression in the shipping trade. The total tonnage of merchant ships and men-of-war docked during the period under review shows a falling off of some 165,000 tons as against the previous half-year. The net profits for the six months ended 30th June, 1909, amount to \$76,609.93, as compared with \$261,981.53 for the previous half-year and \$274,577.68 for the corresponding period of 1908. Including the balance of \$387,078.77 brought forward from last account, and deducting Directors and Auditors' fees, we have available for appropriation the sum of \$420,162.36, out of which your Directors propose, subject to your approval, to pay a dividend for the half-year of 3 per cent., or \$1.50 per share, absorbing \$75,000.00, and carry forward the balance, \$345,162.36 to new account. Certain instalments having been received on account of work in progress, the item "sundry creditors" is higher by some \$90,000.00 than in the last account, while "sundry debtors" is less by some \$95,000.00. The value of material on hand shows a further reduction of about \$66,000.00. The whole of the Company's buildings, docks and plant have been kept up in a state of thorough working order, and the addition of a few up-to-date machine tools at Kowloon Dock will increase the efficiency of the establishment. It has been necessary to relay the permanent way throughout the yard at Kowloon, substituting heavier rails for those previously in use, which experience proved to be too light; the cost, \$7,853, has been paid for out of revenue.

Reorganization.

Since we last met, we have received Mr. Dyer's report and after careful consideration of his recommendations, some progress has been made which, your Directors trust, will in the future result in the more economical working of the Company, and at the same time, by greater efficiency and the adopting of more modern methods in our system of book-keeping and allocation of departmental charges, enable us with greater accuracy to arrive at the actual cost of production of all articles turned out at our works, and thus place us in a better position to compete for all work that may be offering. Mr. Mitchell, a very old servant of the Company, tendered his resignation which was accepted, and he left the Colony in April last. Your late Secretary, Mr. Rose, had an agreement running on until November, 1911: this has, by mutual consent, been cancelled, by a payment to Mr. Rose, with which we trust he is satisfied, and that you, gentlemen, will approve of our action in this matter. To replace the gentlemen just referred to, we have engaged, as Chief Manager, Mr. Robert Morton Dyer, for a period of three years, with our option of renewing for a further two years. Mr. Dyer will select and engage, on terms agreed upon by your Directors, a Secretary who is thoroughly conversant with the book-keeping, time-keeping and costing of a shipbuilding or engineering business. In the accounts before you under this heading you will observe that there has been an expenditure of \$37,776.34. This includes Mr. Dyer's salary and expenses for coming out and reporting on the affairs of the Company, the payment to Mr. Rose referred to, and Mr. Mitchell's passage money to England. Now, gentlemen, you may well feel anxious to know in what way you are to benefit by this expenditure. It is proposed to move the Head Office over to Kowloon, retaining on this side in less costly premises one senior and one junior clerk, with the Compradore and staff. It is considered that a great deal of the work hitherto done in the Hongkong office is superfluous, and that by the amalgamation, a considerable saving will be effected. There are also several changes contemplated in the

management of the various docks all tending towards economy, and we have in view a reduction in expenditure of from £5000 to £5500 per annum. The only further known payment is that of some \$25,000 for lengthening and providing increased office accommodation in the present Drawing Office at Kowloon, but as this is a permanent improvement, it can properly be added to the book value of Kowloon Dock. There is one further matter to which I must refer, and that is the valuation of our Stock. Your new manager is of opinion that it is necessary to write down values as they at present stand in our books, they having hitherto been based on cost. Your Directors, recognising that this is a matter of primary importance, have arranged with Mr. Finlay Miller to go through the Stock in conjunction with our new store-keeper recently arrived from England, and value it item by item. This work is now in progress but, as you will readily understand it is a big undertaking and must necessarily occupy time. In the past, Stock has only been valued at the end of each year. We regret not having the figures to place before you at this meeting, but on Mr. Dyer's return in October next they will be submitted to him, and I promise you, should any adjustment be found necessary, it will be carried out before we come before you with our accounts to the 31st December next. Since Mr. Mitchell's departure, Mr. Wilson has been acting as Chief Manager, and your Directors inform you with regret that he has made up his mind to retire in a few months' time. I gladly take this opportunity of thanking Mr. Wilson for the whole-hearted way he has carried on the work, and to wish him good health and prosperity wherever he may elect to settle. Gentlemen, I have endeavoured to make the position clear to you, but should any shareholder require further information, I shall be pleased to afford it to the best of my ability.

No questions were asked and the Chairman proposed the adoption of the report and accounts as presented.

Mr. Slade—I regret that the report which I have now the pleasure to second is not a more satisfactory one, but I do not think anyone can have looked for anything better. The depression in trade and the keen competition which we have had to encounter are evidenced by the deficiency of 165,000 tons of tonnage entering the Docks as compared with last half year. I hope, however, that this may prove the Company's low water mark and that from now on we may see a gradual but continued improvement. I am led to this hope by what has been told us regarding the reorganization scheme. I myself, like many other shareholders, thought this scheme should have been brought forward some years ago and we might now have been in a better position than we are today, but now that it has been entered into I am glad to find that the Board has taken it up so thoroughly. Economies to the extent of from £5,000 to £5,500 per annum are already in view and I hope that when Mr. Dyer comes back and settles down to his work he will be able to increase these economies and at the same time maintain and possibly improve the efficiency of the Docks. The Chairman has referred to the question of stocks. This is an item which bulks very largely in our balance sheet, standing at \$1,250,000 odd. I am sure it is a wise thing to have a thorough revaluation of this, but I hope the Chairman's remarks do not portend the appropriation of any large sum out of the profits of this half year for the purpose of writing down values. One of the results of our reorganization scheme has been the retirement of certain members of our staff. I think you will all agree with me, gentlemen, when I say that we appreciate most highly the valuable services they have rendered us for many years past. At the same time I should like to welcome our new chief manager, Mr. Dyer, and to wish him every success in the extremely arduous task which he has undertaken. I have much pleasure in seconding the adoption of the report and accounts.—The motion was carried unanimously.

The Chairman.—That is all the business, gentlemen; thank you for your attendance. Dividend warrants will be ready to-morrow.

CONTRACTING NEWS

PHILIPPINE BUREAU OF SUPPLY.—Two ten-ton road rollers. Castle Bros.-Wolf and Sons, two ten-ton Iroquois Rollers ₱6,200; the Kelly Springfield Company, Buffalo Pitts, at ₱5,270; Findlay and Company, ₱5,500, and ₱5,000 duty free; F. Wilson, two Marshall and Sons Rollers ₱4,700; and C. E. Helvie, Buffalo-Pitts, delivered at Bureau of Supply landing ₱6,495.

ROYAL SIAMESE NAVAL DEPARTMENT.—The following tenders were opened last month on the supply of materials and erection of a steel plate store building:

Howarth Erskine Ltd., Ticals 32,985.00, J. M. Dunlop & Co., 34,257.00, Foo Sang, 36,200.00, Bangkok Dock Co., Ltd., 42,850.00, G. Kluzer & Co., (for steel material only) without foundation and erection 19,295.00. For Carpenters' Building.—Howarth Erskine Ltd., Ticals 18,390.00, J. M. Dunlop & Co., 25,250.00, Bangkok Dock Co., Ltd., 25,300.00. For Boat Shed.—Howarth Erskine Ltd., Ticals 8,067.00, Bangkok Dock Co., Ltd., 8,750.00, G. Kluzer & Co., 9,670.00, J. M. Dunlop & Co., 10,875.00.

CHIEF QUARTERMASTER, PHILIPPINES DIVISION.—Ten bicycles.—Bids submitted: F. H. Thompson ₱63.10 each, for Iver Johnson make; Rafael Reyes, ₱60 for the Dayton; N. T. Hashim and Company ₱119.40 for the Rambler chainless; Erlanger and Gallinger, ₱142 for the Columbia.

SHANGHAI MUNICIPALITY.—One Hundred Steel Poles, 30 feet long, for Electric Street Lighting. Contract awarded Messrs. Bullers Ltd. at £2 14s. 5d. each f.o.b. London. Repairs to the Launch Swift.—Awarded Vulcan Iron Works, Ltd. Tls. 275. The other tenderers were New Engineering & Shipbuilding Co., Ltd., Tls. 485. and the Shanghai Dock and Engineering Co., Ltd., Tls. 435. Steel Work for the Sinza Fire Station. Awarded The Vulcan Iron Works Ltd., Tls. 1,142, delivery ten weeks. The other bidders were: W. M. Law, Tls. 1,100, 12 weeks; New Engineering & Shipbuilding Works Ltd., Tls. 1,216, 11 weeks; Fah Shing Iron Works, Tls. 1,448, 6 weeks; Shanghai Dock & Engineering Co., Ltd., Tls. 1,515, 8 weeks; Howarth Erskine, Ltd., Tls. 2,080, 4 weeks; Compagnie Générale de Constructions Industrielles en Chine, Tls. 3,000, 5 months.

CHIEF QUARTERMASTER, PHILIPPINES DIVISION.—Bids for construction of seagoing tug as follows:

Riley, Hargreaves and Company, Limited, \$86,500; Shanghai Dock and Engineering Company, Limited, \$70,530; Hongkong, Whampoa Dock Company, Limited, \$90,027; Findlay and Company, \$91,875; Castle Bros.-Wolf and Sons, \$82,000 and \$66,250, and the New Engineering and Shipbuilding Works, Limited, \$83,150.

NAVAL DEPARTMENT, CAVITE.—Electrical supplies. Contract awarded the Electrical Supply Co., Inc., of Manila, for 2,000 feet of Telephone cable at ₱0.60 per foot; one voltmeter, ₱244.00; 6,000 feet of felt wire ₱0.03 a foot; 800 frosted lamps, at ₱0.38 each.

MANILA MUNICIPALITY.—STEAM LAUNCH.—Contract awarded Messrs. Castle Bros.-Wolf & Sons, representing The Taikoo Dockyard and Engineering Co., Ltd., Hongkong. Price \$21,547.71, to be completed in five months. The other bidders were: Messrs. Findlay & Co. representing the Hongkong and Whampoa Dock Co., Ltd., ₱22,400; Messrs. Earnshaw & Co. offered the launch "Mascot" for ₱12,000; Messrs. Holliday Wise & Co. representing the Shanghai Dock and Engineering Co., Ltd., ₱23,200, to be completed in five months; Messrs. Riley Hargreaves & Co., ₱24,800, to be completed in eight months; El Varadero de Manila, ₱33,200, to be completed in six months.

BUREAU OF PUBLIC WORKS, PHILIPPINE ISLANDS.—Irrigation Division.—Contract awarded the Atlantic Gulf & Pacific Company, the only

bidder. The following are the prices by unit: 50 Steel Head Gates and Gate Frames, without gate stems, weighing approx. 18,369.6 kilograms. ₱0.265 per kilogram; 50 Gate Hoists, each ₱29.00; 50 more or less Gate Stems various lengths, cutting 73.56 meters thread, ₱8.40 each; furnishing 1.5 inch by 1.5 inch square steel rods for gate stems, approx. 1,259.1 kilograms, ₱0.185 a kilogram; 9 stem Guides weight approx. 128.9 kilograms, 0.21 a kilogram. To be delivered as wanted; total in three months.

BUREAU OF PUBLIC WORKS, BRIDGE DIVISION.—Bigaa Bridge—Reinforced Concrete. Contract awarded for all material except the fabricated steel. There were four bidders, contract awarded the Atlantic, Gulf and Pacific Company, price estimated from unit bid submitted ₱21,000 approximately. Total cost of bridge when completed estimated at ₱37,500.

ELECTRICAL SUPPLIES, MUNICIPALITY SHANGHAI.—Tenders are invited for the following:

A.—The supply and delivery at the Electricity Works, c. i. f., duty paid, of 9,700 Carbon Filament Incandescent Lamps.

B.—The supply and delivery at the Electricity Works, c. i. f., duty paid, of 23,250 Metallic Filament Lamps.

C.—The supply, delivery and erection at the Electricity Works, c. i. f., duty paid, of an Electric Goods Lift, capable of raising and lowering a load of 2½ tons.

Conditions, specifications, forms of tender and all necessary information may be obtained upon application to the Electrical Engineer, Mr. T. H. U. Aldridge, at the Works, 31 Fearon Road.

A charge of Tls. 25 will be made for each specification, which will be returned upon the receipt of a *bona fide* tender.

Sealed tenders will be received by the undersigned as follows:—

A.—marked "Tender for Carbon Lamps" not later than noon on Thursday, September 30, 1909.

B.—marked "Tender for Metallic Lamps," not later than noon on Thursday, September 30, 1909.

C.—marked "Tender for Electric Lift," not later than noon on Tuesday, Sept. 7, 1909.

The Council does not bind itself to accept the lowest or any tender, or to pay any expenses which the contractor may incur in tendering.

The names of tenderers, with the prices quoted, will be published for general information.—By order, W. E. LEVESON, *Secretary*.

BANGKOK SANITARY DEPARTMENT.—One 8-ton Steam Road Roller.—Bids submitted as follows:

Howarth Erskine Ltd., Ticals 6,070.00, Samsen Dock Co., Ltd., 6,500.00, J. D. Macarthur & Co., Ltd., 6,550.00, J. M. Dunlop & Co., 6,750.00, Siam Engineering Co., Ltd., 7,500.00.

PROPOSALS FOR PLUMBING.—Headquarters Philippines Division, Office of Chief Quartermaster, Manila, P. I., August 27, 1909. Sealed proposals, in triplicate, subject to the usual conditions, for furnishing all labor and all material to install plumbing in 17 buildings at Asturias and Jolo, Jolo, will be received here until 10:00 a. m., September 27, 1909, and then opened. Plans, specifications, blank forms and information furnished upon application. Envelopes containing proposals should be endorsed "Proposals for plumbing at Jolo, Jolo, to be opened at 10:00 a. m., September 27, 1909," and addressed to the Chief Quartermaster, Philippines Division, Manila, P. I.

NOTICE TO CONTRACTORS.—Sealed proposals, indorsed "PROPOSALS FOR SHIPFITTER'S SHOP, BUILDING No. 40," will be received at the office of the Civil Engineer, Naval Station, Olongapo, P. I., until 11 o'clock a. m., October 15th, 1909, and then and there publicly opened for the construction of a shipfitters' shop at the

Naval Station, Olongapo, P. I. Plans and specifications can be obtained on application to the Commandant or from the Civil Engineer at the Naval Station, Olongapo. A. P. Nazro, Rear Admiral, U. S. Navy, Commandant Naval Stations, Cavite and Olongapo, P. I.

NOTICE TO CONTRACTORS.—Sealed proposals, indorsed "PROPOSALS FOR QUAY WALLS," will be received at the office of the Civil Engineer, Naval Station, Olongapo, P. I., until 11 o'clock a. m., October 15th, 1909, and then and there publicly opened for the construction of quay walls at the Naval Station, Olongapo, P. I. Plans and specifications can be obtained on application to the Commandant or the Civil Engineer, Naval Station, Olongapo, P. I. A. P. Nazro, Rear Admiral, U. S. Navy, Commandant Naval Stations, Cavite and Olongapo, P. I.

PHILIPPINE BUREAU OF SUPPLY.—Hospital Supplies for General Hospital to be opened October 20th.

U. S. NAVY, CAVITE.—Bids to be opened September 30th for construction of one 96 ft. single screw launch.

BIG BRIDGE CONTRACT.—Howarth Erskine, Ltd., has been awarded the contract for erecting a bridge on the Kuala Kangsar Road and for steel work for seven bridges of the Perak type design, says the *Straits Times*.

FOR SALE.

Patent Slip supplied to H. H. The Rajah of Sarawak by Messrs. Day Summers & Co., Ltd., of the Northam Ironworks, Southampton, England, for sale f.o.b. Kuching, Sarawak. The Slipway has never been erected and was designed to take a vessel of a total displacement of 570 tons, 44' 6" over paddle-boxes, 175 ft. long drawing, 1' 1½". All complete including winding gear and rails, except for the boiler and can be seen lying here. Full particulars will be supplied to any bona fide enquirer on application being made to the undersigned.—H. F. CAREW-GIBSON, *Commissioner of Public Works and Surveys*.

F. M. S. TIN OUTPUT FOR JULY.

	Piculs.
Belat.....	637
Bruang.....	72
Bruseh.....	165
Gopeng.....	760
Kanaboi.....	326
Kinta.....	400
Kledang.....	.....
Kuantan.....	121
Lahat.....	951
New Gopeng.....	200
Pahang Consolidated.....	1,680
Pengkalan.....	350
Pusing Lama.....	805
Rambutan.....	400
Redhills.....	605
Royal Johore.....	100
Salak South.....	350
Sempam.....	56
Serendah.....	314
Sipiau.....	90
Tekka.....	570
Trough.....	3,300

PHILIPPINE GOLD OUTPUT FOR AUGUST.

The Paracale Gold Dredging Company, 623 ounces. The Benguet Consolidated, 195 ounces bullion and 254 ounces matte.

NEW PHILIPPINE ELECTRICAL SUPPLY COMPANY.—The Electrical Supply Company, Inc., was recently registered at Manila with a capital of ₱100,000 for the purpose of manufacturing electrical fixtures, etc., and to carry on a general importing electrical business. The directors are: M. Garcia, President; H. Herman, Vice-President and General Manager; L. Vizconde, Secretary-Treasurer, D. Crame, and J. Slisz.

FAR EASTERN ENGINEERING, CONSTRUCTION, COMMERCIAL AND FINANCIAL NEWS

ELECTRIC RAILWAYS, LIGHT, POWER, TELEGRAPHS, TELEPHONES, AIRSHIPS, ETC.

JAPANESE WIRELESS RATES.—The rate for commercial messages is 25 sen for 5 words and for press messages, 20 sen for 50 words.

CHANCHUN ELECTRIC PLANT.—The South Manchuria Railway Company is preparing to install an electric power and light plant at this point.

NINGPO ELECTRIC LIGHT PLANT.—The merchants of this city have subscribed the sum of Tls. 100,000 for the purpose of installing an electric light and power plant.

ELECTRIZING JAPANESE RAILWAYS.—The Railway Bureau is contemplating the supplanting of steam by electricity on all the main lines after the branch lines are electrified.

PUNJAB ELECTRICAL DISTRIBUTION COMPANY.—This company has gone into liquidation and the matter of lighting for Lahore and Amritsar is now being considered by the authorities.

THE BATAVIA ELECTRIC TRAMWAY.—For the last year the receipts exceeded the outlay by 43,000 guilders. During the year many extensions were made and the traffic greatly increased.

JAPANESE AEROPLANE ASSOCIATION.—An organization has been effected to encourage research in navigation of the air among leading Japanese professors of the different colleges and scientific men.

DAIREN ELECTRIC RAILWAY.—The car barn is the scene of great activity in the assembling of coaches for the different routes. The first section connecting the wharf with the market is now operating.

AIRSHIPS FOR CHINA.—It has been decided by the Board of War to experiment in the use of airships for the Army and will purchase some Wright machines if arrangements can be made to secure them.

JAPANESE AIRSHIP.—Yoshinosuke Takaoka, a student at the Tsukiji industrial school, is reported to have perfected an airship that rises vertically with its own power and makes a speed of 50 miles an hour.

CANTON TELEPHONE SYSTEM.—The Self-Government Association has registered a complaint against the management of this system with the Board of Posts and Communications asking for a reform of the system.

KEIHIN ELECTRIC EXTENSION.—This company has secured a charter to add an extension connecting Shinagawa and Aoyama. This line is proposed in anticipation of the completion of the electrifying of the line between Tokyo and Kodzu in 1916.

PALACE HOTEL WIRELESS.—This station has been removed, the proprietors having been indemnified by the Chinese Government for the cost of installation and the instruments taken to the Chinese Telegraph Administration building on the Bund in Shanghai.

CHINESE TELEGRAPHS.—The President of the Board of Posts and Communications at Peking has announced that it is his purpose to acquire for the government all the railway and telegraph lines one by one until the systems are under absolute control of the central board.

KEI-HIN ELECTRIC HYPOTHECATION.—The loan of yen 2,000,000 has been successfully made through the agency of Messrs. Sale and Frazer, which will pay off the high interest loan of yen 1,300,000 and leave over yen 500,000 for improvement and doubling of the line.

U. S. TRANSPORT WIRELESS.—Four days out from Honolulu on her recent trip to Manila, a message was recorded by the Transport Sheridan from North Head, Washington, a distance of over 3,500 miles. This is the record for long distance communication in the Pacific.

SINGAPORE'S NEW MOTOR FIRE ENGINE.—The city has purchased a 50 h. p. engine from Messrs. Merryweather & Sons, driven by a petrol engine and is equipped with hose reel and fire escape making a complete department. It carries this apparatus at a speed of 30 miles an hour.

TOKYO ELECTRIC RAILWAY SUPPLY.—Great competition among the hydro-electric power companies for the business of the Tokyo Railway Co. has been noted, but owing to the time which must elapse before the Agatsuma Company completes its installation, the contract lies between the Oi-gawa and the Kinugawa companies.

KOREAN TELEPHONES.—The Post Office at Seoul inaugurated a long distance telephone service between that point and Haiju, Chunchon, Kaisong and Survon. It is its purpose to extend this system to include all the small places within this area. There are now about 2,000 miles of police wires in Korea and it is proposed to add 500 more at a cost of yen 70,000.

TOKYO ELECTRIC LIGHT COMPANY.—At the last general meeting of this company the expenditure of yen 16,500,000 was authorized for the purpose of extending the hydro-generating capacity of its plants. It is proposed to install a generating power station at Yatsusawa, operated with a volume of water of 1000 cubic feet and a 385 foot head. It is estimated that 35,000

h. p. would thus be realized. The present capacity of the company is 27,000 h. p. With the increase, sufficient power will be realized to meet the growing demand for many years.

INTER-MARINE WIRELESS.—The transmission of messages between ships at sea and to points in the United States and Asia is a most satisfactory innovation in the Pacific and has been successfully accomplished by the co-operation of the vessels of the Canadian Pacific and the Nippon Yusen Kaisha. It is also being used in spreading information of weather conditions, which no doubt will be more perfected when all the vessels plying in these waters are fully equipped and the meteorological stations have completed their wireless installations. Hongkong is agitating this question and the government of the Philippines is ready to co-operate.

PUBLIC WORKS, DOCKS, WHARVES, BUILDINGS AND GENERAL CONSTRUCTION.

STRAITS SETTLEMENTS PUBLIC WORKS.—The total amount expended during the year 1908 was \$2,360,000.

SENATE HOUSE PEKING.—Estimates have been submitted placing the cost of construction of this building at Tls. 90,000.

JAPANESE IRRIGATION WORKS.—The sum of yen 3,000,000 annually is to be expended until 1923 to complete the schemes now under way.

GERMINAL CIGAR FACTORY EXTENSION.—This company has decided to build an extension to its present plant in Manila at an outlay of ₱100,000.

CH'ANGCH'UN CUSTOM HOUSE.—The sum of Tls. 290,000 has been appropriated for the purpose of erection of this building and making this point a treaty port.

BANGKOK ABATTOIRS CREMATORY.—The municipality has provided a crematory to destroy diseased animals, etc., at the abattoirs. Messrs. Howarth Erskine, Ltd., were the contractors.

THE HUANGPU CONSERVANCY.—The report for the quarter ended July 1st states that 1,021,781 cubic yards were dredged during that time by the three dredges in the new channel.

RANGOON IMPROVEMENTS.—The port commissioners have undertaken a large scheme for river improvement and are building a long stretch of open wharves and jetties along the river front.

JUNGTING RIVER CONSERVANCY.—The investigation of the feasibility of conserving this river has resulted in the approval of the scheme. Plans have already been drafted and sanctioned.

PENANG HARBOR WORKS.—The report for 1908 gives the information that 3840 tons of silt were dredged from the harbor in the vicinity of Church Street Wharf and Swettenham and Victoria piers.

PHILIPPINE IRRIGATION.—The Philippine Government is making a soil inspection of Bulacan province with a view to carrying out an extensive irrigation scheme covering an area of 65,000 acres.

POSTPONED PUBLIC WORKS AT SINGAPORE.—Proposed works to the estimated value of \$323,330 have been postponed on account of the deficit in revenue occasioned by the shortage in opium revenue.

SHANGHAI BUND BRIDGE.—This proposed structure will cost Tls. 60,000, according to the estimates, and it is expected that the French Concession will subscribe the sum of Tls. 10,000 towards the expense.

NEW PORT NEAR ANTUNG.—With the completion of the reconstruction of the Antung-Mukden Railway by the Japanese, it is proposed to open a port at the mouth of the river nearer the sea than the city.

CANTON'S NEW COUNCIL CHAMBER.—The contract for the construction of this large building to be erected near the East gate has been let to a Hongkong contractor. The cost will be approximately \$120,000.

NEW TSINGTAU CLUB.—The plans for this institution have been approved and work will commence about the first of the year. Architect Curt Rothkegel of Tsingtau won in the competition among all the architects of the Far East.

SINGAPORE'S NEW FIRE STATION.—This building which is now nearing completion will represent an outlay of \$100,000. It is a three-story structure and will be most modernly equipped for the care of the members of the department.

NEW STEEL BRIDGE AT LANCHOW.—This bridge which is 760 feet in length and 30 feet wide was opened for traffic July 26th. It has six steel spans resting on four piers of solid masonry. Messrs. Telge and Schroeder of Tientsin were the contractors.

TIENSIN NAVAL YARD.—The recommendation of Admiral Sha in regard to the establishment of a naval yard at Tientsin has been approved by the Naval Commissioners. Engineers have been selected to look up a site suitable for the purpose.

NEW WHARVES AT ZAMBOANGA.—Plans are being prepared for a new wharf at this point to be built this year. It will have a surface space of from 5,000 to 7,000 square feet and the harbors will be dredged so as to give at least 25 feet alongside.

YONGAMPPO HARBOR WORKS.—The relation of this harbor to trade between Manchuria and Korea has been considered of sufficient interest to expend the sum of yen 5,000,000 in deepening the harbor and otherwise improve facilities for handling cargo.

BUILDING IN DAIREN.—The construction of an extensive gas works is progressing rapidly and pipes are being laid in the different streets. Besides this enterprise the plant of the Wild Cocoon Silk Spinning Company is installing machinery and has decided to adapt the plant to the use of gas exclusively.

MORO PROVINCE PUBLIC WORKS.—The treasurer's report for the fiscal year ended June 30th, 1909, states that P173,071 were expended for public works. Of this P23,713 were expended in public buildings, P83,256 on road and bridge construction, P32,813 on wharves and sea walls, and P95 miscellaneous.

KUALA LUMPUR WATER SUPPLY.—The new system will soon be in operation and the completion of one of the filter beds near Ampang will inaugurate a temporary service by a pipe line laid across Weld Hill previous to the completion of the distributing reservoir. The work on the reservoir is progressing favorably.

ZAMBOANGA WATER SUPPLY.—A company has been organized for the purpose of installing a water supply and providing electric light and power for the city. Engineer Holmes is preparing plans and estimates and already sufficient stock has been subscribed locally for the purpose of carrying out the project successfully.

NEW CHANNEL AT NEWCHWANG.—The *P. & T. Times* says that a Chinese cruiser reports having discovered a channel as deep as 25 feet at low tide while surveying the approaches to that harbor. The Chinese Government is issuing a chart. Heretofore vessels of over 10 foot draft could not run the bar at the mouth of the Jiao.

PEARL HARBOR DRY DOCK.—The naval dock there will be 1,152 feet long from the coping to the outer sill, 140 feet wide at the top with provision for a depth of 35 feet of water over the entrance sill at mean high water. An intermediate caisson will be installed dividing the dock into two sections of 575 and 532 feet respectively.

CHINA'S ARSENALS.—The Ministry of War has submitted a memorial to the throne urging the immediate expenditure of Tls. 8,000,000 for the construction of three arsenals previously recommended in the North, South and central respectively. This body directs attention to the increasing requirements of the army for ordnance, etc.

HINDUSTAN-TIBET ROAD.—The work on this important thoroughfare is progressing rapidly, according to the latest advices. A suspension bridge is being constructed about five miles from the Tibetan frontier at Spoo and a bridge is also being built at Chowra. The material for these bridges has been brought out from England over the passes.

STANDARD OIL COMPANY'S NEW BUILDING AT SHANGHAI.—This company proposes erecting a four-storey building at the corner of Canton and Szechuen Roads either of artificial stone or granite. It will have a frontage of 200 feet with the main entrance at the corner. The architect is Mr. Sidney J. Powell and the construction will cover a period of 18 months.

HONGKONG'S NEW POST OFFICE.—This handsome building has cost up to the end of the fiscal year 1908, 520,296. The total appropriation for this purpose was \$930,000. All the walls have been completed to the third floor. The dressed granite set in the work amounted to 19,059 cubic feet in addition to which 5,894 cubic feet of rough granite has been set.

KELANTAN PUBLIC WORKS.—The resident's report for 1908 shows an expenditure of \$50,000 approximately. This sum was expended in completing the jail at Kota Bharu, building a market and in the construction of a residence for the secretary to the resident and another for the superintendent of police together with the usual road building and upkeep of drainage systems, etc.

HONGKONG PUBLIC WORKS.—The report of the Public Works Department for the year shows an expenditure of \$1,779,749 out of \$1,907,469 authorized. The work on the Typhoon Shelter involved an outlay of \$183,696 for a dredger. The work on the Law Courts and Post Office Buildings have yet the amounts of \$200,000 and \$400,000 to be expended on them, respectively, before completion.

ANDERSON BRIDGE, SINGAPORE.—This important structure is nearing completion. Over 1,200 tons of steel were used in its construction and the abutments are of solid masonry. The bridge offers a carriage way of 30 feet and the foot ways on either side are 7 ft. 6 in., respectively. The approaches are 60 feet between kerbs and a ten foot pavement on either side. The cost of the bridge is being borne by the municipality and the tramway company. The plans were prepared by Mr. Pierce, Municipal Engineer, the Westminster Construction Co. has the contract for the construction of the abutments and Messrs. Howarth, Erskine, Ltd., are contractors for the superstructure. This bridge when open will give the tramway connection with the new harbor and central sections and prove of great service in alleviating traffic congestion.

YALU RIVER BRIDGE AND ITS BENEFITS.—The following estimates of benefits in intercommunication as a result of the construction of this large bridge now in progress is given by an exchange:

When the new big bridge over the Yalu River at Shin-Wiju is constructed, and when the Mukden-Antung Railway is completed, it would be possible to travel from Shimbashi to Mukden in 70 hours, including the sea voyage from Bakan to Fusan. The different stages are from Shimbashi to Fusan 36 hours; from Fusan to Seoul 11 hours; from Seoul to Shin-Wiju 14 hours, and from Shin-Wiju to Mukden 9 hours. Compared with the rate of travel by the Dairen route, this will be a gain of about 40 hours, for it now takes 25 hours from Tokyo to Dairen and about 12 hours from Dairen to Mukden. Supposing the Korean and East Manchurian lines to be well equipped, there can be no hesitation between the two routes. The effect produced upon the prosperity of Fusan, Shin-Wiju and Antung can not but be very considerable.

SHIPBUILDING, GENERAL MARINE AND FISHERIES

CHINA'S NAVAL SCHEME.—The High Commissioner of Naval Schemes has memorialized the Throne asking for Tls. 16,000,000 to be expended in the construction of warships covering a period of four years. The Prince Regent is reported to be in favor of constructing ten battleships at a cost of Tls. 400,000,000 immediately.

MOTOR BOATS AT CANTON.—The American Consul at Canton reports that there are 289 steam launches registered at this port as well as two private launches and 51 motor boats.

NEWSPAPERS ON THE TOYO KISEN KAISHA.—This company proposes publishing a daily newspaper on board the Tenyo and the Chiyo for the accommodation of the passengers. The news will be gathered by wireless. The equipment on board these vessels is effective for over 1,300 miles.

SUBMARINES FOR CAVITE.—The Naval Department at Washington has concluded arrangements for the shipment of eight additional submarines for service in Manila Bay.

AMERICAN MARINE ACTIVITY.—Contracts covering an expenditure of over \$9,000,000 have been placed with Atlantic yards for the construction of vessels during 1909. Among these contracts are three steamships for the Alaska Steamship Company to cost \$700,000 and one passenger and freight carrier for the Matson Navigation Company operating between San Francisco and Honolulu. This is a record year in American shipbuilding.

LUMBER FOR NANKING.—The Yawata Maru has been chartered by Messrs. Bowring & Co. and is loading in Puget Sound.

HONGKONG MOTOR BOAT LAUNCHED.—The Tien Ma, the largest motor boat in the Orient built for the river trade between Wuchow and Nanking, made her trial trip August 7th. The vessel is hollow sterned, length 74 feet, beam 14.5 ft. and her draught when loaded with 25 tons of cargo and 125 passengers is 2.5 feet. A 100 b. h. p. six cylinder Gardner engine is installed. Kerosine is used as fuel and seven pints per hour is the average consumption. This is the fourth boat on this run and another is being constructed. The engine was supplied by Messrs. J. W. Kew & Co. and the hull was built at Wuchow. The engine was installed by the Hongkong Dock Company.

DAIREN-UIJINA STEAMSHIP LINE.—The s. s. Tatsui Maru will make semi-monthly trips connecting these two points and calling at Chemulpo and Moji each way.

THE SEATTLE MARU.—This new vessel of the O.S.K. arrived in Hongkong on her initial trip the latter part of August and proceeded from there via Keelung, Shanghai, Moji, Kobe, Yokkaichi, Shimidzu, Yokohama to Tacoma. The tea ports will be excluded except during the tea season. This vessel was built by the Kawasaki Dockyard, Kobe, and is of 6,182 tons gross. On her trial trip she made 15.5 knots and on her trip from Moji to Hongkong she averaged 11.5 knots.

PACIFIC FREIGHTER RECORD.—The Blue Funnel freighter Teucer made the voyage from Yokohama to Victoria in July in 12 days, 22 hours and 26 minutes. The best day's steaming was 332 miles.

PHILIPPINE ONE BOTTOM RULING.—The provisions of the Payne Bill requiring that goods shipped from the United States to the Philippines, participating in the free entry provisions of the Payne Bill, must be carried to the islands in one bottom, is expected to have the effect of inducing many Pacific lines to make Manila a port of call.

FREIGHT SCHEDULE FROM PACIFIC COAST TO CHICAGO.—In connection with the arrangements between the O.S.K. and the Chicago Milwaukee and St. Paul R.R., the latter company has issued a freight schedule announcing the time service between Seattle and Chicago to be less than seven days. This is about half the time consumed by the older lines, but it is expected that the reduction in time will be met by all the other lines.

CHINA MERCHANTS S. N. CO.—The Board of Posts and Communications has directed the Ta Ching Bank at Newchwang to turn over the Kee Chang Wharves to the exclusive use of this company. These docks have been mortgaged by the Tung Sheng-hoo to the Ta Ching Bank.

NEW MANILA AND HONGKONG LINE.—The representative of the Compania Maritima has been visiting Hongkong to make arrangements for the establishment of a line to ply between British ports, Manila, and other ports in the islands.

PACIFIC MAIL REDUCES RATES.—The rate from Manila to San Francisco has been cut to \$220, government employees' rate is \$150, while the Federal officers and missionaries get a rate of \$166.26. The rate on intermediate steamers from Manila has been reduced from \$150 to \$125.

MINES, MINERALS AND THE METAL TRADE

THE COWIE HARBOR COAL COMPANY.—The output of coal for the year 1908 was 25,130 tons and the sales 20,120 tons. The equipment is now sufficient to make a showing of 100 tons a day. This coal is reported to be equal to Australian coal.

UPPER BURMA RUBY MINING.—The value of rubies taken out annually in Burma is approximately \$500,000.

YUNNAN MINERAL POSSIBILITIES.—A future is promised French enterprise in Yunnan in the development of large deposits of copper in the North and tin and lead in the south of this territory.

PARACALE GOLD BOOM.—The reports from Paracale districts continue most optimistic and not a few new finds have been made that give promise of remarkable returns. There are now three dredgers working in the district, one of which has been working for over a year taking out 600 oz. a month, while the other two have not been operating a sufficient length of time to make definite report. The testings give promise of greater returns by the latter dredgers than the one that has been in operation for the greater length of time. The installation of the twenty-stamp mill at the San Mauricio is progressing rapidly and the Tumbaga is also getting in shape for extensive operations. Besides the gold, a lead zinc vein has been discovered in Mt. Tinga, a mile north of Paracale. There is great activity among prospectors and some large capitalists are now looking over the ground with a view to development on a large scale.

KWANGSI SILVER MINE.—The Chen Hua Co. has been organized to develop the silver deposits at Kueihien and machinery has already arrived and is being installed. The report of the Chinese expert who examined the mine contains the information that 200 ounces of bullion may be extracted from a ton of the ore. Twenty lodes have been discovered, each of equal value.

TONGKAI HARBOR DREDGING COMPANY.—This company has been operating successfully in this harbor and was recently authorized the construction of seven new dredgers. The bottom of the harbor has been found very rich in tin ore, samples taken from borings out as far as three miles from the shore showing two pounds of ore per cubic yard.

F. M. S. TIN EXPORT.—The export for the six months ended July 31, 1909, was 453,837.51 piculs. This was a decrease of 36,954.63 compared with the export for the corresponding term 1908.

RAUB GOLD EXPORT.—During the month of July, Raub exported 1,190 ounces of gold and the total export for the year is 9,773.44.

TRONOH MINES REPORT FOR 1908.—The sales of tin ore for the year included 1,712 tons upon which was realized £123,683. Much dissatisfaction developed among the shareholders that found expression at the annual meeting over the character of certain machinery sent out alleged useless.

CEMENT TELEGRAPH POLES FOR AUSTRALIA.—The Postmaster General has directed that tenders be invited for the supply of 1,000 ferro concrete telegraph poles for the use of the government. A London company has offered to supply them at the rate of £50 5s. 6d. for 60 poles each 30 feet long.

DUFF DEVELOPMENT.—The company saved 5,123 ounces of gold by dredging for the year which was about 700 ounces better than 1907.

SUGAR MILLS FOR PANAY.—As a result of free entry of sugar from the Philippines several sugar mills have been ordered for installation on the large plantations.

FUSHUN COAL.—Several shipments have been made monthly to Singapore, Shanghai, and Hongkong of the coal from the South Manchuria Railway mines.

ASIATIC PETROLEUM COMPANY.—This company has just completed the installation of an oil tank at Shaokangtzu. Tanks were already installed at Mukden, Tieling, Changchun and Liaoyang by this company.

ALLUVIAL IRON MANUFACTURE.—The announcement is made that the Hokkaido Colliery has invented a process of manufacturing iron from iron sand and announces itself prepared to supply 50 tons a day. The process separates the titanium from the iron by combining an element affiliable to titanium and utilizing electricity for separation.

MIKE COAL FIELDS.—The total area of this important coal field is estimated at 40,000 acres, and six mines are now in operation. The output of these mines averages about 4,500 tons a day.

AN-YUEN COAL MINES.—The three mines in operation there have an output of coal and coke of about 1400 tons a day. In all about 10,000 men are employed. The product is carried by the railway to Chu-cheo, several trains running daily.

TATINGTZE COAL MINE.—A seam of coal 10 feet thick has been developed about 40 miles southeast of Kwanchengtzu and an enterprising Chinese has been working it for over a year. The quality of the coal is said to be satisfactory.

CEYLON GEM MINES.—The export of gems from Ceylon is about £240,000 annually in value. These gems are secured in the Ratnapura district.

MINING PLANTS FOR FUSHUN.—Messrs. Head, Wrightson & Co., Ltd., of London, have secured the contract for the installation of pithead plants for the Togo and Oyama pits.

BENGUET OUTPUT.—The gold output of the Consolidated is valued at \$40,000 for the first seven months of this year. With the increased facilities for saving it is expected to reach the vicinity of \$100,000, during the year.

FINANCIAL AND MISCELLANEOUS

PHILIPPINE PUBLIC WORKS BONDS.—The following were the bids made for the recent issue of P3,000,000 four per cent. Philippine Bonds.

The National City Bank and Mercantile Trust Company, P2,776,000 at 100.28; Payne and Company, P200,000 at 100.51; Morris and Merritt P10,000 at 102; and John Selverm P6,000 at 101. One of the terms of the purchase of the bonds was that the purchaser shall pay accrued interest on the bonds from August 1. The Guaranty Trust Company of New York made an offer of 100.23 for the entire issue, on the terms that they should be allowed to take all or none.

PHILIPPINE LAND INVESTMENT COMPANY, LTD.—This company has been organized by Philippine capitalists interested in Baguio property with a capital of \$200,000.

SEKONG RUBBER COMPANY.—This company has been organized with a capital of £80,000 for the purpose of growing rubber in British North Borneo, where it has acquired 8,800 acres of selected rubber land from the North Borneo Trading Company on a 999 years' lease, rent free, near Sekong.

NAGOYA ELECTRIC LIGHT COMPANY'S LOAN.—This loan is for yen 1,500,000 at 7.5% and has been taken up by the Meiji Life, Meiji Fire and the Tokyo Insurance companies.

OSAKA-KOBE ELECTRIC RAILWAY LOAN.—This loan for yen 1,000,000 at 6.3% has been taken up by the Third Bank.

GUNONG RAPAT RUBBER ESTATES.—Organized capital \$150,000, 150,000 shares, of which 10,000 shares are offered at par and proposes to acquire Gunong Rapat Estate and the Sungai Raja Estate near Ipoh. The rent is 50 cents an acre, and the total acreage, 333.

BRANCH OF THE CHARTERED BANK.—This institution has opened a branch at Klang, Selangor, F. M. S.

FORMOSA CAMPHOR OUTPUT.—The estimated output for Formosa for the year ending March 31st, 1910, is 3,170,000 pounds.

CHINA'S FLOUR IMPORT.—The total import of this commodity for the year was 300,000 tons, of which 165,000 came from America.

MANCHURIA BEAN EXPORT VIA VLADIVOSTOCK.—It is reported that the Mitsui Bussan Kaisha has contracted for 350,000,000 pounds of beans to be delivered at this port during the present year.

PHILIPPINE COPRA INDUSTRY.—The export of copra for the last fiscal year amounted to 168,500,000 pounds and had a value of P10,923,260.

HONGKONG SHANGHAI BANK'S UNIVERSITY CONTRIBUTION.—The Hongkong and Shanghai Banking Corporation has contributed the sum of \$50,000 towards the endowment fund of the proposed university at Hongkong.

KOBE'S POPULATION.—The latest census places the population of this city at 212,500.

PERAK RUBBER GROWING INDUSTRY.—Over 56,000 acres are planted in rubber in this state representing 8,500,000 Para rubber trees and according to the British Resident's report 10,500 acres were planted in 1908 and there is prospect of increased activity annually.

THE OSAKA FIRE.—The risks carried by Japanese fire insurance companies in the burnt district of Osaka aggregate yen 7,500,000 approximately.

CHINESE FLOUR MONOPOLY.—The principal Chinese flour mill owners in Shanghai have petitioned the Board of Agriculture for a monopoly of the milling business in the provinces of Kiangsu and Anhwei for a period of 10 years.

FEDERATED MALAY STATES RUBBER EXPORT.—The total export for the first seven months of 1909 was 2,998,428 pounds, about 700,000 pounds more than for the whole of 1908.

F. M. S. AGRICULTURE.—The total acreage under cultivation is estimated by the Director of Agriculture at 319,722 acres of which there are 118,697 acres in coconuts, 168,048 in rubber, 8,431 in coffee and 24,546 acres in other products, principally tapioca.

BRIEH RUBBER ESTATES, LTD.—This company has a capital of £50,000 of which 20,000 shares of £1 each were offered. The company is to acquire 1,190 acres at Bagan Derai, Perak, of which 516 acres have been planted in rubber varying from 15 months to four years.

RATANUI RUBBER ESTATE LIMITED.—This company has been formed with a capital of £35,000, of which 16,000 shares of each are offered at par. The com-

pany is to acquire 673 acres at Telok Anson, Perak, with 406 acres planted in para some of which is 3.5 years old.

FOREIGN POST OFFICES IN CHINA.—The Board of Posts and Communications has requested the Wai Wu pu to negotiate with the diplomatic corps at Peking for the closing of all the foreign post offices in Shanghai, Tientsin, Kiaochow, etc.

THE KOREAN CENTRAL BANK.—The memorandum published with reference to this institution by the Department of Finance follows:

1.—The Korean Bank is a joint stock company organized by both Japanese and Koreans. The Capital is put at Yen 10,000,000 consisting of 100,000 shares, of which 30,000 shares will be subscribed by the Korean Government.

2.—The Bank will deal in Treasury Funds, and at the same time handle the business of exchange, exchequer bonds, and the interest thereof.

3.—The Bank will reserve gold coins, gold and silver bullion, and convertible notes of the Bank of Japan in the same proportion as the notes issued. It can also issue notes amounting to Yen 20,000,000.

4.—The Korean Government has the right of superintendence over the Korean Bank. No dividend shall be paid on the shares held by the Government until a dividend of 6 per cent. per annum is paid on shares owned by ordinary shareholders.

5.—The Korean Government will advance Yen 1,200,000 free of interest by way of subsidy. This fund share shall remain unredeemed for five years, but must be redeemed in ten years.

6.—The Korean Bank shall advance to the First Bank an amount equivalent to the guarantee fund at the time of the transference of business from the First Bank. The Fund is redeemable in 20 years with no interest.

ILOILO SUGAR SHIPMENTS.—During the present year, 1,061,038 piculs of sugar were shipped from this port.

THE SAHANG RUBBER ESTATES, LTD.—This company has been registered with a capital of £65,000 to acquire lands in Borneo and elsewhere and to engage in the rubber growing industry.

KIAOCHOW TRADE.—The trade for the year 1908 amounted to Tls. 32,089,000, an increase of 11% mostly export, the import showing a decline compared with previous year.

HONGKONG'S POPULATION.—The total population exclusive of the New Territories is 336,488 of which 12,925 are white, 316,850 Chinese.

YANGTZE TRADE.—The trade of Hankow for the year 1908 amounted to Tls. 120,000,000, an increase of over 5,000,000 over the previous year. Kiukiang made a showing of 30,000,000 Taels about the same as the previous year. Nanking's trade amounted to about Tls. 9,855,892 about half a million short of the previous year.

JAPANESE SILK PRODUCTION.—Japan produces 50,000,000 cattieis of silk or about 40% of the world's production.

KOREAN BUDGET.—The Residency General Budget for the year is announced at yen 10,000,000, of which yen 3,000,000 is for the expenditure of the Resident General, yen 3,600,000 for the judicial department of Korea, yen 210,000 for education and yen 3,000,000 already loaned.

THE NIITAKA SUGAR MANUFACTURING COMPANY.—This company is registered with a capital of yen 5,000,000 for the establishment of a factory at Dabyo, Kagi prefecture, Formosa. The factory is to be equipped with two sets of machinery, each with a capacity of 1,000 tons. It is expected that the plant will be in operation next year.

CHINESE FROZEN PIG EXPORT.—A consignment of frozen pork also poultry, 8,418 cases; game, 10,674 cases; eggs, 21,048 cases; deer, 1,345 carcasses; beef, 12 quarters, were offered for sale in London. A number of hares, teal, widgeon, wild duck, wild geese, snipe, pheasants, woodcocks, fowls, ducks, and bustards, which also formed part of the frozen consignment from China which arrived there in the P. & O. S. Palermo. The birds were all in first class condition and plump. The 15,000 packages which were sent over contain about 200,000 birds. The birds were on sale in the West-end shops, labelled "Chinese Poultry."

OSAKA SHOSHEN KAISHA LOAN.—The Fifteenth Bank has taken up the yen, 1,000,000 loan of the O. S. K.

CANADIAN TRADE COMMISSIONER'S OFFICE AT SHANGHAI.—The Government of the Dominion has established an office at 15 Kiukiang Road as announced for the purpose of promoting, assisting and stimulating trade with and from China.

JAPAN'S SAVINGS BANKS.—The total deposits of the savings banks June 30th, 1909, amounted to yen 114,376,000.

YALU TIMBER TRADE.—The total export of timber comprised 4,000 rafts, making 1,350,000 pieces eight feet in length during the year 1908. Up to the end of June this year there were already 2,000 of these rafts brought down the river.

KOREA'S POPULATION.—The total population of the peninsula, according to the Police Affairs Bureau, is 9,288,000 of which 119,000 are Japanese.

THE WEAVING INDUSTRY IN CANTON, CHINA

"The development of the home industry and the prevention of foreign intrusion" are the expressions often heard among the Chinese, says a Japanese Exchange. The cry is the loudest in Canton, because political ideas are comparatively developed among the people there. The so-called encouragement of industry comprises the establishment of fishery, the management of railways, the establishment of banks and steamship companies and the making of shoes, paper and underwears, but particular attention is paid to the weaving industry.

The following are names of principal weavers in Canton:

Yatung Cloth Manufacturing Co., Chiao-shin Manufacturing Co., Huangpu Manufacturing Co., Mushin Company, Yuanchao Industrial Co., Yungshin Industrial Co., Shinning Industrial School, Shinmin Weaving School.

Of the above, the Yatung Co. is engaged in manufacturing lined flannel, and is equipped with 6 H. P. oil-engine and 24 weaving machines for broad cloth, and 30 for narrow width. The flannel (15 yards) is sold at 2 yen, 50 sen, but as the demand is rapidly increasing, new machinery from Japan is imported. Factory girls work from 8 a. m. to 5½ p. m., and an hour is given for meals. The wage is paid at the rate of 5 sen per 10 feet. The result will be quite satisfactory when the Toyoda machinery from Japan is fully installed.

The Yuanchao Industrial Co. is also engaged in manufacturing gas yarn cloth lined and plain. It is carried forward on a much larger scale than the above mentioned one.

The Shinmin Weaving Co. is under the Japanese women married to the Chinese, and purports to be something very profitable, and it has steam power installment.

The Shinning Industrial School is a private institution where weaving and lessons in dyeing are given. There are about 30 students, and the institute has some 25 weaving machinery.

The Mushin Co. is situated in the southwestern part of the city, and has a capital of 100,000 yen. It is provided with some 60 weaving machinery, while the company expects to install 30 more Toyoda weaving machines.

THE SABANG BAY HARBOR AND COAL COMPANY

This company which has met with success in its operations at Sabang is now busy doubling its wharf frontage and reclaiming a large portion of the foreshore for the purpose of constructing coal depots, oil depots, and canning factories for the preserving of pine-apples, etc.

Sabang Bay is proving a rival to Singapore as a coaling station and an ideal harbor. It lies at the extreme northeast of Dutch Sumatra, within two days' sailing from Singapore and at a point where it might be said that it is the real gateway to Eastern waters. The harbor entrance is over a mile wide and easily accessible. It is well sheltered and the depth ranges from seven to 21 fathoms. The coal wharves, when the extensions are completed, will have a length of approximately 3,000 feet, with at least 30 feet of water alongside. The coal sheds have a capacity of 30,000 tons, while the minimum amount maintained on hand is 10,000 tons.

The floating dry dock is large enough to accommodate vessels of 3,000 tons while the shops in connection are sufficiently well equipped to handle all the work very expeditiously.

Every inducement is being made to encourage vessels to call at this port for supplies. The company offers free anchorage, free pilot service and wharfage to the lines making Sabang a port of call with the result that it is becoming more popular yearly.

After ten years, this company has overcome many obstacles to success, but it is forging ahead and branching into many additional industries that promise to make Sabang an important center of trade in the very near future. The canning industry particularly seems full of promise and an indication that the company is keeping abreast of the times is noted in the preparations being made to supply oil burners with oil by the erection of a substantial storage plant for oil.

*MOTOR BOATS IN CHINA

Consul Wilbur T. Gracey, of Tsingtau, transmits the following report relative to house boats in China, and the introduction of motors for their propulsion:

House boats have been in use by the natives of China for some hundreds of years, and have been improved and largely used by occidentals living in the Chinese Empire since their arrival in the country. At Shanghai large numbers are owned by the well-to-do Chinese merchants as well as by foreigners.

These boats are usually supplied with long oars and are rowed by Chinese boatmen who can be employed at about 20 cents a day. Generally 6 men are sufficient in the creeks in and about Shanghai and the lake districts, as well as on the grand canal, especially as when going on long trips these boats are attached to steam launches which pass up and down the canals at intervals drawing long trains of various kinds of boats. In Foochow and some of the southern Chinese ports a crew of 8 is usual, at a total cost of about \$1.20 a day for the entire crew. Sails are also used on these southern boats to a considerable extent.

An innovation has recently appeared in Shanghai, which is a motor house boat recently built for the Asiatic Petroleum Company. This boat is rather larger than the usual type of house boat in Shanghai and has finer lines and a torpedo stern. The principal dimensions are: Length, 57 feet; beam, 9 feet; draft, 23 inches. The boat is driven by 2 Kelvin motors, each of which has 4 cylinders and is capable of developing 14 horsepower. With the present type of propeller these motors are unable to run at full speed, but they attain 22 horse-power and a speed of 8 miles an hour.

Gasoline is used only to start the engines, ordinary kerosene being used when they have once been set in motion. On a recent trip from Shanghai to Hankow and back 7 cases of kerosene were used and the journey occupied 12 hours less than the ordinary boat train. As petroleum can be purchased in every Chinese city there is no difficulty in replenishing fuel.

It appears possible that this type of boat will become popular with foreigners and Chinese in China, and if so, there should be a good opportunity for the introduction of American types of marine engines. It must be remembered that these engines should be made for boats with a shallow draft, and it is also important that the boats should leave little or no wash, which is an important consideration in creek traffic in China, where a heavy wash is liable to destroy the mud banks and make trouble for the boat owners.

*Daily Consular and Trade Reports.

CURRENT NEW YORK WHOLESALE PRICES OF METALS, MINERALS, CHEMICALS, ETC.

Selected from the Engineering and Mining Journal

U. S. Currency.	
ABRASIVES.—	
Bort, good drill quality.....	carat. \$ 85.00
Carborundum, grains.....	lb. 10-17
Corundum.....	" 07-10
Emery, grain.....	" .035-.045
Pumice Stone, American powdered.....	100 lbs. 1.60-2.00
ACIDS.—	
Hydrochloric 20°.....	lb. 1.25-1.50
Nitric, 38°.....	4.25-4.625
Sulphuric, 66° bulk.....	ton 18.00
ALUMINUM, Sulphate Com'l.....	lb. 1.10-1.75
ANTIMONY, needle.....	" .05-.06
ARSENIC, white.....	" .05-.055
red.....	" .075-.70
ASPHALTUM.—	
Trinidad.....	ton 2.00-30.04
California.....	" 21.00-27.00
BLEACHING POWDER, 35%.....	100 lbs. 1.25-1.00
BLUE VITRIOL.....	lb. 5.00
BONE ASH.....	" .022-.00
BORAX.....	" .045-.050
*CAPS detonating.....	M -7.50
CEMENT.—	
Portland, American.....	500 lbs. bbl. 1.55-1.64
Foreign.....	" 2.25-2.90
Rosendale.....	300 " " .85
*Green Island.....	375 " " 2.75
*Alsen.....	" 3.04
CLAY, CHINA.—	
American common.....	lg. ton 8.50-9.00
Foreign.....	" 10.00-17.05

*COALS.—

Batan, at Mines.....	ton 2.00
Australian.....	" 5.50
COPPER.....	lb. 13-10
*DYNAMITE 40%.....	" .20
FELDSPAR ground best.....	sh. ton 10.50-15.00
FIRE BRICK, American.....	ton 30.00-40.00
Imported.....	" 30.00-45.00
FIRE CLAY, St. Louis Mill.....	ton 2.50
FUSE—Blasting.....	1,000 ft. 7.50
GRAPHITE—Ceylon, lump.....	lb. .04-10
Large lump.....	lb. .07-10
GYPHUM—Fertilizer.....	sh. ton 7.00
Powdered.....	sh. ton 12.00-20.00
LEAD.....	lb. .04
MAGNESITE—Greece, crude, 95%.....	lg. ton 8.00-10.00
Bricks, domes.....	per M 160-200
MANGANESE, Ore. 80-85%.....	sh. ton 20.00-50.00
MERCURY, export flask.....	75 lbs. 36.00-39.00

PAINTS AND COLORS.—

Litharge American P'w'd.....	lb. .064. 620
Ochre, Am. Com.....	sh. ton 850-9.00
Paris green pure, bulk.....	lb. 26
Turpentine, spirits, bbl.....	gal. 44.4
White lead, Am. dry.....	lb. .054. 0
Am. in oil.....	lb. .064. 06
Zinc, white, Am. extra dry.....	lb. .054. 05
PHOSPHATES, Acid.....	per unit 65-7
Florida hard rock.....	lg. ton 10.25-10.5
Land pebble 64%.....	" 5.25-5.5
POTASSIUM Cyanide (98-99%).....	lb. 18-19
PLATINUM.....	oz. 28.00
PLATINUM Scrap.....	oz. 17.00
SPELTER.....	lb. .045-046
NICKEL.....	Small lots. lb. .50-1.0
*POUNDER, black blasting A.....	lb. 15
*Judson.....	lb. 14.5
Pyrite, Domestic Non-arsenical, Lump.....	unit. 11-11.5
Imported non-arsenical lump.....	" 12.5-13
Imported, arsenical.....	" 450-5.00
SALT PETER crude.....	100 lb. 4.50-5.00
SILICA, Lump quartz.....	lg. ton 5.00-6.00
Ground quartz ordinary.....	" 13.00-15.00
Glass sand ordinary.....	" 2.7
SILVER.....	oz. .554-.55
SODIUM cyanide (100% KCN).....	lb. .1
*STEEL, octagon drill.....	lb. .22
SULPHUR, Louisiana prime.....	lg. ton 1.85-2.
Roll.....	100 lbs. 1.20-2.
Flowers sublimed.....	" 15.00-25
TALC—Domestic.....	sh. ton 35.00-40.
Italian, best.....	" .94
TIN.....	lb. .052-.06
ZINC, Sheet.....	100 lb. .052-.06
Dust.....	lb. .052-.06
*Manila quotation.	

*LONDON, ENGLAND, METAL MARKET

August 1909

**The following are (August 18) prices of metals:—

	COPPER	£ s. d.	£ s. d.
*Tough cake and Ingot.....	62	0	0
*Best Selected.....	62	10	0

HEMP STATISTICS, 31st AUGUST, 1909.

(Courtesy of C. S. NICHOLSON, Secretary, Manila Chamber of Commerce.)

EXPORT OF HEMP, AUGUST, 1909.

Date	Vessel	London	L'pool	Atlantic U.S.	Pacific East & California	Continent.	Australia	Other Pts.	Total Bales
1909	Forward:—	152,885	82,760	306,933	75,259	38,158	10,665	21,024	687,684
Aug. 1	Rubi.....							600	600
" 4	Aldenham.....							30	30
" 4	Numantia.....			19,050					19,050
" 4	Taming.....	4,885				150			5,035
" 5	Orestes.....		3,762						3,762
" 5	Cyclops.....				3,150				3,150
" 6	Yuensang.....					40			40
" 10	Indravelli.....			12,099					12,099
" 10	Alicante.....	200	1,500			54			1,754
" 11	Aymeric.....			2,999					2,999
" 11	Muncastle Castle..			18,125					18,125
" 13	Rubi.....					100		665	765
" 13	Erroll.....			2,750					2,750
" 14	Kaifong..... Cebu		175						175
" 14	Coblentz.....						300		300
" 20	Yuensang.....	1,050				100		250	1,400
" 21	Muncastle Castle.....Cebu			8,000					8000
" 21	Zafro.....					449		350	799
" 23	Politician.....	7,819	3,752			600			12,171
" 24	Changsha.....						872		872
" 26	Erroll..... Cebu			22,300					22,300
" 28	Loongsang.....							450	450
" 28	Kumano Maru....							88	88
" 31	Rubi.....							100	100
" 31	Taming.....	3,371				250		16	3,637
" 31	Politician... Cebu	3,910	2,500						6,410
		174,120	94,449	389,257	81,408	39,901	11,837	23,573	814,545

*Electrolytic.....	63	10	0	64	0	0
*Sheet and sheathing.....	72	0	0			
*Flat bottoms.....	75	0	0			
STANDARD {Cash.....	60	1	3			
{Three Months.....	61	0	0			
*Copper tubes, seamless per lb.....	0	0	8 1/2			
*Lake.....	64	0	0	65	0	0
* Less 2 1/2 per cent.				† Net.		

ALLOYS.

BRASS: Wire.....	0	0	6 1/2			
" Tubes (solid drawn).....	0	0	6 1/2			
" Sheets.....	0	0	6 1/2			

TIN.

English ingots, f. o. b.....	132	0	0	133	0	0
" bars.....	133	0	0	134	0	0
" refined.....	134	0	0	135	0	0
Straits {Cash.....	134	15		135	0	0
{Three months.....	136	5	0	136	10	0
Australian spot.....						
Bangka (in Cash.....	135	15	0			
Holland) {Three months.....	136	12	6			

LEAD.

Spanish or soft foreign.....	12	12	6	12	15	0
English pig, common.....	12	15	0	13	0	0
" L. B.....	13	7	6			
" sheet and bar lead.....	13	17	6			
" pipe.....	14	7	6			
" red.....	15	15	0			
" white.....	17	10	0			
" patent shot.....	15	17	6			

SPELTER.

Silesian ordinary brands.....	21	17	6	22	0	0
special brands.....	22	5	0	22	7	6
English Swansea.....	22	5	0	22	15	0
Sheet zinc.....	24	15	0			

ANTIMONY.

Antimony.....	29	0	0	30	0	0
" Crude.....	13	10	0	14	10	0
" Ore (basis 50%).....	7	10	0	8	10	0

QUICKSILVER.

Flasks 75 lbs. warrants.....	8	5	0			
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MANGANESE.

Ore, c.i.f., U. K. ports.	Per unit.	Per unit.*
1st quality, 50 per cent. and upwards.	0 0 9 ..	—
2nd quality, 47 per cent. to 50 per cent.	0 0 8 ..	—
3rd quality, 40 per cent. to 47 per cent.	0 0 7 ..	—
* Unit corresponds to 1 per cent.		

ALUMINIUM. Per ton. Per ton.

98-99 per cent.....	65	0	0	70	0	0
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NICKEL. Per ton. Per ton.

98-99 per cent. guaranteed.....	170	0	0	175	0	0
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PLATINUM.

Per oz. Troy, 99s. nominal and subject to negotiation.

**Mining Journal

FAR EASTERN STOCKS AND QUOTATIONS

Courtesy of Messrs. Kadoorie & Co., Hongkong, September, 1909.

STOCK.	WHEN ESTABLISHED	CAPITAL	NO. OF SHARES	VALUE PAID UP	RESERVE	AT WORKING ACCOUNT	DATE	LAST DIVIDEND.	Approximate Yield per cent per annum at Pre-Quotation	CLOSING QUOTATIONS (Aug. 13, 1909)
BANKS.										
Hongkong & Shanghai Banking Corporation	1865	\$15,000,000	120,000	\$125	\$125	{ £1,500,000 } { \$14,500,000 } { \$250,000 }	\$2,006,234	31-12-08 { Interim of £2 for account 1909, @ ex 1/9 1/2 = \$22 72.	4	{ 1000 sellers } { £93 ex. div. }
National Bank of China, Ltd.	1891	£699,475 10	99,925	£7	£6	{ £4,000 } { \$150,000 }	\$10,223	31-12-07 \$2 (London 3/6) for 1903.		\$65 buyers
MARINE INSURANCES.										
Canton Insurance Office, Ltd.	1881	\$2,500,000	10,000	\$250	\$50	{ \$1,560,000 } { \$232,757 } { \$411,990 }	Nil.	31-12-07 \$14 for 1907.	7 1/2	\$185 sellers
North China Insurance Co., Ltd.	1863	£150,000	10,000	£15	£5	{ £125,000 } { Tls. 150,000 } { Tls. 303,747 } { Tls. 118,277 }	Tls. 160,512	30-6-08 Interim of 7/6 for % 1907.	5 1/2	Tls. 120
Union Ins. Society of Canton, Ltd.	1867	\$3,100,000	12,400	\$250	\$100	{ \$3,000,000 } { £90,000 } { \$192,248 } { £105,249 } { \$682,609 }	\$2,464,901	31-12-08 { Final of \$17 making \$47 for 1907, and interim of \$30 for account 1908.	5 1/2	\$835 sales
Yangtze Ins. Association, Ltd.	1862	\$1,200,000	12,000	\$100	\$60	{ \$1,000,000 } { \$294,405 } { \$199,234 }	\$707,637	31-12-08 \$12 and bonus \$3 for 1907.	7 1/2	\$235
FIRE INSURANCES.										
China Fire Ins. Co., Ltd.	1870	\$2,000,000	20,000	\$100	\$20	{ \$1,000,000 } { \$438,668 } { \$13,802 }	\$375,314	31-12-08 \$6 and bonus \$2 for 1907.	7	\$115 sales
Hongkong Fire Ins. Co., Ltd.	1868	\$2,000,000	8,000	\$250	\$50	{ \$1,438,173 }	\$368,711	31-12-08 \$27 for 1907.	8	\$350 buyers
SHIPPING.										
China & Manila Steamship Co., Ltd.	1882	\$750,000	1) 30,000	\$25	\$25	{ \$284,638 }	Dr. \$21,538	31-12-08 \$1 for 1906.		\$9 sellers
Douglas Steamship Co., Ltd.	1883	\$1,000,000	20,000	\$50	\$50	{ \$99,067 } { \$250,000 }	Nil.	(30-6-08) \$2 1/2 for year ending 30-6-08	7	\$36
Hongkong, Canton & Macao Steamboat Co., Ltd.	1865	\$1,200,000	80,000	\$15	\$15	{ \$617,500 } { \$119,267 } { \$22,645 }	\$21,170	30-6-09 Interim of \$1 1/2 for a/c 1909.	7 1/2	\$31 1/2 sellers
Indo-China Steam Navigation Co., Ltd.	1882	£600,000	{ 2) 60,000 } { 2) 60,000 }	£5	£5	{ £148,891 }	£15,162	31-12-08 { 6/- for 1907 on pref. shares only at ex. 1/9 11/16, \$3.154 }		\$59 1/2 buyers
Do. Do. (Preferred)										
Do. Do. (Deferred)										
"Shell" Transport & Trading Co., Ltd.	1898	£2,000,000	2,000,000	£1	£1	{ £720,000 } { £100,000 }	£192,994	31-12-08 { Final of 2/- for 1908 & int. of 1/- for a/c 1909.		7 1/2 buyers
"Star" Ferry Co., Ltd.	1898	\$200,000	10,000	\$10	\$10	{ \$65,000 }	\$31,21	30-4-09 { \$1.00 for year ended 30-4-09 }	4	\$26 sales
	1900		10,000	\$10	\$5	{ \$48,980 }		{ 50 cts. }	3 1/2	\$15 1/2
REFINERIES.										
China Sugar Refining Co., Ltd.	1878	\$2,000,000	20,000	\$100	\$100	{ \$350,000 } { \$56,848 }	Dr. \$5858	31-12-08 \$5 for year ending 31-12-08.	3 1/2	\$145 buyers
Luzon Sugar Refining Co., Ltd.	1882	\$700,000	7,000	\$100	\$100	none	Dr. \$135,893	31-12-08 \$3 for 1897.		\$29 sellers
Perak Sugar Cultivation Co., Ltd.		Tls. 350,000	7,000	Tls. 50	Tls. 50	Tls. 100,000	Tls. 9,173	31-8-07 Tls. 3 1/2 for year ending 31-8-08.		Tls. 295 sales
MINING.										
Chinese Engineering & Mining Co., Ltd.	1901	£1,000,000	1,000,000	£1	£1	{ £175,000 } { £12,289 }	£11,556	28-2-07 { Int. of 1/6 for year ending 29-2-09 (Coupon No. 12) }	7	Tls. 18-20 sellers
Raub Australian Gold Mining Co., Ltd.	1892	£200,000	{ 150,000 } { 50,000 }	£1	18-10 £1	{ £4,873 }	Dr. £2,191	31-3-08 No. 12 of 1/- = 48 cents.		\$8 sellers
DOCKS, WHARVES AND GODOWNS.										
Fenwick (Geo.) & Co., Ltd.	1889	\$450,000	18,000	\$25	\$25	{ \$42,986 }	Dr. \$7,421	31-12-08 \$1 1/2 for year ending 31-12-06.		\$12
Hongkong & Kowloon Wharf & Godown Co., Ltd.	1886	{ \$3,000,000 }	{ 60,000 }	{ \$50 }	{ \$50 }	{ \$550,000 } { \$26,806 } { \$40,000 }	\$30,102	31-12-08 { Final of \$1 1/2 making \$3 1/2 for 1907.		\$60 sa. & b.
Hongkong & Whampoa Dock Co., Ltd.	1866	\$2,500,000	50,000	\$50	\$50	{ \$97,199 } { \$221,000 }	\$345,162	30-6-09 Interim of \$1 1/2 for account 1909.	12 1/2	\$62 buyers
Shanghai Dock & Engin'g Co., Ltd.	1906	Tls. 5,570,000 13)	55,700	Tls. 100	Tls. 100	{ Tls. 1,000,000 } { Tls. 697,257 }	Tls. 6,261	30-4-09 { Final of Tls. 2 1/2 for year ending 30-4-1909.	6 1/2	Tls. 79 1/2 sales
Shanghai & Hongkew Wharf Co., Ltd.	1902	Tls. 3,600,000	36,000	Tls. 100	Tls. 100	{ Tls. 50,000 } { Tls. 125,000 }	Tls. 6,261	31-12-08 { Final of Tls. 6 making Tls. 10 for 1908.	6 1/2	Tls. 148 buyers
LANDS, HOTELS AND BUILDINGS.										
Anglo-French Land Investment Co., Ltd.	1906	Tls. 2,500,000 3)	25,000	Tls. 100	Tls. 100	Tls. 35,000	Tls. 4,314	29-2-09 Tls. 6 for year ending 29-2-09	5 1/2	Tls. 105 buyers
Central Stores, Ltd.		\$751,845 16)	50,123	\$15	\$15	{ \$1,000 }	\$24,641	31-12-08 { \$1.20 on old & 60 cts. on first new issue.		\$17 buyers
Hongkong Hotel Co., Ltd.	1866	{ \$600,000 } { \$400,000 }	{ 12,000 } { 8,000 }	{ \$50 } { \$25 }	{ \$50 } { \$25 }	{ \$648,975 } { \$13,912 }	\$295	31-12-08 Final of \$3 making \$6 for 1908.		{ \$75 ex n. i. } { \$45 new i. }
Hongkong Land Investment & Agency Co., Ltd.	1889	\$5,000,000	50,000	\$100	\$100	{ \$250,000 }	\$26,475	31-12-08 Interim of Tls. 3 1/2 for a/c 1909.	6 1/2	\$105 sellers
Humphreys' Estate & Finance Co., Ltd.	1887	\$1,500,000	150,000	\$10	\$10	{ \$222,172 } { \$43,261 }	\$5,486	31-12-08 60 cents for 1908.	6 1/2	\$9 1/2 sellers
Kowloon Land & Bldg. Co., Ltd.	1889	\$300,000	6,000	\$50	\$30	none	\$278	31-12-08 \$1 1/2 for 1908.	5	\$30 sellers
Shanghai Land Investment Co., Ltd.	1888	Tls. 3,900,000	78,000	Tls. 50	Tls. 50	{ Tls. 1,523,045 } { Tls. 300,000 }	Tls. 142,404	31-12-08 Interim of Tls. 3 for 1909.	6 1/2	Tls. 120 sellers
West Point Bldg. Co., Ltd.	1889	\$625,000	12,500	\$50	\$50	none	\$1,968	31-10-08 Interim of \$2 for a/c 1909.		\$44
COTTON MILLS.										
Ewo Cotton Spinning & Weaving Co., Ltd.	1895	Tls. 1,000,000 5)	20,000	Tls. 50	Tls. 50	{ Tls. 150,000 } { Tls. 45,939 }	Tls. 8,820	31-7-08 Tls. 5 for year ended 31-10-08.	3 1/2	Tls. 135 1/2 sellers
Hongkong Cotton Spinning, Weaving & Dyeing Co., Ltd.	1901	\$1,250,000	125,000	\$10	\$10	{ \$20,000 }	\$9,553	30-9-08 50 cents for year ending 31-7-08.	6	\$7 1/2 sellers

FAR EASTERN STOCKS AND QUOTATIONS—(CONTINUED.)

STOCK.	WHEN ESTABLISHED	CAPITAL.	NO. OF SHARES.	VALUE.	PAID UP.	RESERVE	AT WORKING ACCOUNT.	DATE.	LAST DIVIDEND.	Approximate Yield per cent. per annum at present Quotation.	CLOSING QUOTATIONS
International Cotton Manufacturing Co., Ltd.	1895	Tls. 750,000	6) 10,000	Tls. 75	Tls. 75	Tls. 175,000	Tls. 8,372	31-12-08	Tls. 6 for year end. 30-9-06 (8%).	---	Tls. 92
Laou-kung-mow Cotton Spinning & Weaving Co., Ltd.	1895	Tls. 800,000	8,000	Tls. 100	Tls. 100	none	Tls. 4,829	31-12-08	Tls. 4 for 1908	---	Tls. 114 sellers
Soy Chee Cotton Spinning Co., Ltd.	1895	Tls. 1,000,000	2,000	Tls. 500	Tls. 500	Tls. 31,172	Tls. 15,911		Tls. 50 for 1908	---	Tls. 455 buyers
MISCELLANEOUS.											
Bell's Asbestos Eastern Agency, Ltd.	1895	£5,377.10s	11) 8,604	12/6	12/6	£1,500	£682	31-12-08	1s. 10½d. for 1908	---	\$10
China-Borneo Co., Ltd.	1903	£720,000	8) 60,000	\$12	\$12	\$40,000	Nil.	31-12-08	\$1.20 for 1908	9	\$13 buyers
China Light & Power Co., Ltd.	1901	\$550,000	50,000	\$10	\$10	none	\$61,138	28-2-07	60 cents for year ending 28-2-06	---	\$7 sellers
Do. do. Special Shares	1907		17) 50,000	\$1	\$1						
China Provident Loan & Mortgage Co., Ltd.	1898	\$1,250,000	7) 125,000	\$10	\$10	\$100,000	\$3,407	31-12-08	80 cents for 1908	8½	\$9.60 sellers
Dairy Farm Co., Ltd.	1896	\$300,000	40,000	\$7½	\$6	\$10,000	\$48	31-7-08	\$1.30 for year ending 31-7-08	7½	\$17 buyers
Green Island Cement Co., Ltd.	1889	\$4,000,000	400,000	\$10	\$10	\$13,000	\$3,756	31-12-08	Final of 50 cts. making 90 cts. for 1908	10	\$8.70 sellers
H. Price & Co., Ltd.	1907	\$120,000	19) 15,000	\$10	\$10	\$5,000	\$670	31-12-08	80 cents for year ending 31-12-08	8	\$12
Hongkong Electric Co., Ltd.	1889	\$600,000	60,000	\$10	\$10	none	\$5,195	29-2-09	\$1.00 and bonus 20 cents for year ending 29-2-09	6	\$20½
Hongkong Ice Co., Ltd.	1881	\$125,000	5,000	\$25	\$25	\$150,000	\$7,616	31-12-08	Interim of \$2 for a/c 1908	10	\$188 ex. div.
Hongkong Rope Manufacturing Co., Ltd.	1883	\$600,000	\$60,000	\$10	\$10	\$20,000	\$8,790	31-12-08	Interim of \$1 for a/c 1909	8½	\$24 sellers
Maatschappij tot Mijn-, Bos- en Landbouwexploitatie in Langkat	1902	Gs. 2,500,000	25,000	Glds. 100	Glds. 100	Tls. 547,500 / Tls. 63,914 / 21 Tls. 547,500	Tls. 316,682	31-10-08	Second quarterly dividend of Tls. 12½ for % 1909	4	Tls. 1045 buyers
Peak Tramways Co., Ltd. (New)	1907	\$750,000	25,000 / 50,000	\$10 / \$10	\$10 / \$1	\$20,000	\$2,204	30-4-09	80 cents on fully paid shares & 8 cents on \$1 paid shares for year ending 30-4-09	6 / 3	\$14 / \$1.40
Philippine Co., Ltd.	1904	\$750,000	75,000	\$10	\$10	none	Ps. 18,640	31-12-08	None	---	\$9 buyers
Robinson Piano Co., Ltd.	1900	\$200,000	22) 4,000	\$50	\$50	\$5,000	\$61,138	31-8-08	6% for ½ year ending 30.9.07	---	\$50
Shanghai-Sumatra Tobacco Co., Ltd.	1902	Tls. 600,000	9) 30,000	Tls. 20	Tls. 20	Tls. 24,820 / w Tls. 75,000	Tls. 5,250	31-10-08	Final of Tls. 5 making Tls. 8 for 1908	4½	Tls. 151 sellers
South China Morning Post, Ltd.	1903	\$150,000	6,000	\$25	\$25	none	Dr. \$56,602	31-8-08	None	---	\$23 sales
Steam Laundry Co., Ltd.	1902	\$100,000	20,000	\$5	\$5	none	\$236	31-5-08	40 cents for year ending 30-5-08	7	\$5½
Union Waterboat Co., Ltd.	1905	\$500,000	15) 50,000	\$10	\$10	none	\$172	31-12-08	60 cents for year-end. 31-12-1908	5	\$10½ sellers
United Asbestos Oriental Agency, Ltd.	1896	\$100,000	10,000	\$10	\$4	\$35,000	\$1,360	31-5-07	80 cts. on 9,900 ord shares & \$19.80 on 100 founders shares for year ending 31-5-07	6½	\$13
Watson (A. S.) & Co., Ltd.	1886	\$900,000	90,000	\$10	\$10	\$300,000 / \$25,000	\$2,613	31-12-08	Final of 30 cents making 60 cents for 1908	6½	\$8 sellers
Weismann Limited	1904	\$17,500	175	\$100	\$100	\$6,700	\$13	31-7-07	10 per cent for year endg. 31.7.07	---	\$150
William Powell, Ltd.	1901	\$105,000	15,000	\$7	\$7	none	\$3.95	30-6-08	Final of 30 cents making 80 cents for year ending June 30th 1906	---	\$4 sellers
RUBBERS											
Anglo-Malay Rubber Co., Ltd. (fully paid)	1905	£150,000	46,500	£1	£1	---	---	---	30% = 6½ per share for year 1908	---	£7.1.3 sellers
Do. Do. (partly paid)			103,500	£1	17/6	---	---	---		---	£6.15.
Balgownie Rubber Estate, Ltd.	1905	£200,000	20,000	£10	£10	\$7,400	\$11,205	31-3-09		---	\$51½b [S'pore].
Castlefield Rub. Ltd. (fully pd.)	1906	£35,000	6,000	£1	£1	none	---	---	15% for year ending 31-12-08	---	£2.16.3
Do. Do. (contrib.)			24,000	£1	17/6	---	---	---		---	£2.7.6.
Highland & Lnd. Para R. Co.	1906	£310,000	181,460	£1	£1	£8,784	---	---	25% for year ending 31-3-09	---	£3.5½.
Do. Do. (fully paid)			123,540	£1	15½	---	---	---		---	£3.2.6.
Do. Do. (partly paid)				---	---	---	---	---		---	---
Kuala Lumpur Rubber Co., Ltd.	1906	£180,000	180,000	£1	£1	---	1,820	---	3% for year ending 30-6-08	---	£2.15½.
Linggi Plantations, Ltd. (ord.)	1895	£100,000	+900,000	2½	2½	£4,000	---	---	60% for year 1908	---	£1.2.9.
Do. Do. (7% pref.)	1905		10,000	£1	£1	---	---	---		---	Nominal
Ragalla Rubber Co., Ltd. (ord.)	1906	£250,000	22,500	£10	£10	---	---	---	7% for year 1908	---	\$25 s. [S'pore].
Do. Do. (8% pref.)			2,500	£10	£10	---	---	---		---	Nominal
Ledbury Rubber Estates Ltd.	1908	£125,000	60,000	£1	£1	---	---	---		---	£2.
Do. Do. (contrib.)			40,000	£1	7/6	---	---	---		---	£1.5½.

LOANS AND DEBENTURES.

	AGENTS FOR THE LOAN.	AMOUNT OF LOAN.	PAR VALUE.	OUTSTANDING BONDS.	WHEN PAYABLE.	CLOSING QUOTATIONS.
China Government, 7 per cent. Silver Loan 1886 E.	Hongkong & Shanghai Banking Corporation.	Tls. 767,200	Tls. 250	1914	Mar. 31st and Sept. 30th each year until Mar. 31st, 1917	par.
Hongkong Hotel Company, Ltd., 6 per cent. Mortgage Debentures of 1899 f.		\$500,000	\$500	\$ all	Half yearly, June 30th and December 31st	par
Shanghai & Hongkew Wharf Company, Ltd., 11 per cent. Debentures of 1902		Tls. 543,900	Tls. 100	-----	Half yearly, June 30th and December 31st	Tls. 103½
Astor House Hotel Company, Ltd., 8 per cent. Debentures of 1903		Tls. 500,000	Tls. 100	-----	Half yearly, January 1st and July 1st	102½
Chinese Engineering & Mining Co., Ltd., 6 per cent. Debentures of 1903 f.		£500,000	£	£431,960	Half yearly, June 30th and December 31st	par.
International Cotton Manufacturing Co., Ltd. 7% Debentures of 1901	Russo Chinese Bank	Tls. 500,000	Tls. 100	||	Half yearly, March 31st and Sept. 30th	Tls. 97½

a Authorized capital \$2,000,000.

b Building Reserve Account.

c Capital Reserve Fund.

d Depreciation Fund.

e Equalization of Dividend Fund.

f Exchange and Investment Fluctuation Account.

g Gold Reserve Fund

h Exchange Reserve Account.

i Insurance Fund.

j Reinsurance Fund.

k Contingencies Account.

l Legal Reserve Fund.

m Authorized Capital

n Sinking Fund.

o Raw Sugar Reserve Account.

p Premium on New Issue.

q Boiler Repairs and Renewals Account

r Repairs and Renewals Account.

s Silver Reserve Fund.

t Depreciation and Repair Account

u Underwriting Suspense Account.

v Special account

w Special Works Fund.

z Extra Reserve Fund.

y 72,560 owned by the Company.

z 7,200 shares unissued.

1 4,000 shares unissued.

2 First issue of 60,000 of which

10,411 unallotted.

3 5,000 shares unissued.

4 4,480 shares unissued.

5 5,000 shares unallotted.

6 1,616 shares unallotted.

7 75,000 shares unissued.

8 14,000 shares unissued.

9 17,000 shares unissued.

10 40,453 shares actually issued.

11 7,688 shares actually issued.

12 4,200 shares unissued.

13 500 shares unissued.

14 399 shares unissued.

15 22,277 shares unissued.

16 10,000 shares unissued.

17 Special shares are entitled to half

of the profits.

18 Capital contributed by Chinese Gov-

ernment Kuping Tls. 5,000,000.

19 12,000 issued only.

20 Typhoon and Floods Insurance Fund

21 Special Cash Reserve.

22 1000 shares unissued.

* Based on last year's dividend.

** Based on present dividend.

|| Only Tls. 134,000 taken up.

\$ 216 held by the Company.

¶ In certificates of £20 and £100.

‡ Redeemable in 10 years, or at option of Company, the Company giving 6 months notice.

† Redeemable at par at rate of £10,000 per annum from 31st December 1903 to 31st December 95.

*** Redeemable at par on 30th June, 1915.

Dr. Deficit.

†† Singapore dollars.

‡‡ 4,880 shares unissued.

× 16,756 shares unissued.

§§ 25,000 shares unissued.

= 4140 shares unissued.

ADDITIONAL SHANGHAI SHARE QUOTATIONS

STOCK	CLOSING QUOTATIONS	HIGHEST AND LOWEST PRICES DURING THE WEEK	CAPITAL	NO. OF SHARES	VALUE	PAID UP	RESERVE	LAST DIVIDEND	WHEN PAID
Oriental Consolidated Mining Co., Ltd.	27s. 6d.		G. \$5,000,000	500,000	G. \$10	G. \$10	none	Interim of Gold .50 for 1909	June 30, 1909
Vulcan Iron Works, Limited	Tls. 400		Tls. 500,000	1,000	Tls. 500	Tls. 500	—	Tls. 50 for year ended 31.3.06	Nov. 1, 1906
Yangtze Wharf & Godown Co., Limited	Tls. 125 nominal		Tls. 250,000	2,500	Tls. 100	Tls. 100	Tls. 50,000	Tls. 15 for 1908	April 1, 1909
Wei-hai-wei Land & Building Co., Limited	Tls. 10 nominal		Tls. 91,850	3,674	Tls. 25	Tls. 25	—	—	—
Union Estate & Investment Co., Limited	Y. 105 sales		Y. 1,000,000	10,000	Y. 100	Y. 100	—	First year	—
Hotel des Colonies Company, Limited	Tls. 9 sellers		Tls. 112,500	9,000	Tls. 12½	Tls. 12½	Tls. 29,783	6% for 1907	May 29, 1908
Kalee, Limited	\$100 nominal		\$400,000	4,000	\$100	\$100	—	2% for 1908	July 3, 1909
Anglo-German Brewing Co., Limited	\$85 buyers		\$100,000	4,000	\$100	\$100	none	\$7 for 1907	Mar. 12, 1908
Butler Tile Works, Limited	Tls. 50 nominal		Tls. 60,000	1,200	Tls. 50	Tls. 50	—	Tls. 3 for year ending 31.3.09	June 8, 1909
Major Bros., Limited	Tls. 40 sellers		Tls. 300,000	6,000	Tls. 50	Tls. 50	—	—	—
Oriental Ice Company, Limited	Tls. 50		Tls. 130,000	2,600	Tls. 50	Tls. 50	—	First year	—
Scharffs Oil and Bone Mills, Ltd.	Tls. 50		Tls. 200,000	4,000	Tls. 50	Tls. 50	—	First year	—
Shanghai Ice Company, Limited	Tls. 13 sales		Tls. 200,000	8,000	Tls. 25	Tls. 25	—	3% for 1907	Mar. 14, 1908
Shanghai Oil Co., Limited	Tls. 25		Tls. 175,000	7,000	Tls. 25	Tls. 25	—	First year	—
Campbell, Moore & Co., Limited	\$10 buyers		\$12,000	1,200	\$10	\$10	\$9,000	\$3 for 1905	Apr. 2, 1906
Dunning & Company, Limited	\$50 sellers		\$100,000	2,000	\$50	\$50	—	\$5 year ending 28.2.08	Apr. 15, 1908
J. Llewellyn & Co., Limited	\$50 buyers		\$72,000	1,200	\$60	\$60	—	7.20 for 1908	Apr. 1, 1909
Lane, Crawford & Company	\$137½ sales		\$250,000	2,500	\$100	\$100	—	Final of 3% making 6% for 1908	June 8, 1909
Mondon (E. L.) Limited	Tls. 6 buyers	187½	Tls. 225,000	9,000	Tls. 25	Tls. 25	none	—	—
S. Moutrie & Company, Limited	\$48 sellers		\$250,000	5,000	\$50	\$50	—	\$4 for year ended March 31, 1908	June 18, 1908
Weeks & Company, Limited	\$26½ buyers		\$400,000	20,000	\$20	\$20	\$40,000	Final of \$1.20 making \$2 for 1908	May 20, 1909
Dominion Rubber Co., Limited	Tls. 4		Tls. 225,000	22,500	Tls. 10	Tls. 4	—	First year	—
Kalumpang Rubber Co., Ltd.	Tls. 42 sellers		Tls. 700,000	14,000	Tls. 50	Tls. 50	** Tls. 11,844.48	6% for 1907	Nov. 29, 1908
Senawang Rubber Estates Company, Limited	Tls. 100		Tls. 250,000	2,500	Tls. 100	Tls. 100	—	—	—
Senawang Rubber Estates Company, New	Tls. 75		Tls. 250,000	2,500	Tls. 100	Tls. 75	—	—	—
Tebong Rubber and Tapioca Estate, Limited	20s.		£76,000	76,000	£1	£1	—	—	—
Eastern Fibre Co., Limited	Tls. 10 nominal		Tls. 300,000	30,000	Tls. 10	Tls. 10	—	1 ex. 2½=Tls. 0.40 for 1908	August 5, 1909
Shanghai Mercury, Limited	Tls. 50 buyers		Tls. 105,500	2,100	Tls. 50	Tls. 50	—	Final of 6% making 10% for year ended 30.4.08	June 29, 1908
Shanghai Mutual Telephone Co., Limited	Tls. 62 buyers		Tls. 675,000	13,500	Tls. 50	Tls. 50	—	Tls. 3 for 1907	June 28, 1908
China Export, Import & Lumber Company, Limited	Tls. 78 nominal		Tls. 350,000	500	Tls. 100	Tls. 50	—	10 p. c. for year ending 29.2.08	May 1, 1908
China Printing Co., Limited	Tls. 42½		Tls. 750,000	1,500	Tls. 50	Tls. 50	—	7% 1908	Apr. 18, 1909
Dallas Horse Repository Co., Ltd.	Tls. 25 nominal		Tls. 250,000	5,000	Tls. 50	Tls. 50	—	{ 10% = yen 2½ for year ending 30th Sept. 08 Y. 1.20 for year ended Feb. 29 }	Apr. 26, 1909
Hirano Mineral Water Co., Ltd.	Y. 15 sales		Y. 125,000	5,000	Y. 25	Y. 25	—	\$6 for 1907	Apr. 22, 1908
E. E. Porter & Co., Limited	\$50		\$100,000	2,000	\$50	\$50	—	8% for year ended Feb. 28, 09	June 21, 1909
Shanghai Electric & Asbestos Company, Limited	\$20 sales		\$125,000	5,000	\$25	\$25	—	First year	—
Shanghai Electric Construction Company, Limited	£11 buyers	£11	£300,000	30,000	£10	£10	—	—	—

DEBENTURES

LOANS	PRICE—PLUS ACCRUED INTEREST	AMOUNT OF LOAN	OUTSTANDING	NOMINAL VALUE	RATE OF INTEREST	WHEN PAYABLE
Shanghai Municipal Debentures	1892 Tls. 92½	Tls. 50,000	Tls. 45,400	Tls. 100	5 %	June & Dec.
do	1893 " 96	" 125,000	" 32,000	" 100	5½ %	Do
do	1894 " 104½	" 105,000	" 60,000	" 100	6 %	Do
do	1895 " 92½	" 115,000	" 32,600	" 100	5 %	Do
do	1896 " 92½	" 140,000	" 181,800	" 100	5 %	Do
do	1897 " 92½	" 268,800	" 268,400	" 100	5 %	Do
do	1898 " 104½	" 300,000	" 60,000	" 100	6 %	Do
do	1900 " 96	" 33,900	" 31,700	" 100	5½ %	Do
do	1901 " 104½	" 250,000	" 200,000	" 100	6 %	Do
do	1902 " 104½	" 150,000	" 150,000	" 100	6 %	Do
do	1903 " 104½	" 490,500	" 490,500	" 100	6 %	Do
do	1904 " 104½	" 214,500	" 214,500	" 100	6 %	Do
do	1905 " 104½	" 320,000	" 320,000	" 100	6 %	Do
do	1907 " 104½	" 250,000	" 250,000	" 100	6 %	Do
Chinese Imperial Government Loan	1886 E " 250	" 767,200	" 354,400	" 250	7 %	Mar. & Sept
Shanghai Land Investment Co., Debentures	1890 " 102	" 250,000	" 250,000	" 100	6 %	May & Nov.
do	1892 " 96	" 250,000	" 250,000	" 100	5½ %	June & Dec.
do	1894 " 101	" 250,000	" 250,000	" 100	6 %	Mar. & Sept.
do	1896 " 92½	" 250,000	" 250,000	" 100	5 %	June & Dec.
do	1900 " 102	" 250,000	" 250,000	" 100	6 %	April & Oct.
do	1901 " 102	" 250,000	" 250,000	" 100	6 %	June & Dec.
do	1901 " 96	" 100,000	" 100,000	" 100	5 %	May & Nov.
do	1902 " 102	" 400,009	" 400,000	" 100	6 %	June & Dec.
do	1905 " 102	" 250,000	" 250,000	" 100	6 %	Do
Shanghai Waterworks Co., Debentures	1894 " 103	" 100,000	" 100,000	" 100	6 %	Mar. & Sept
do	1896 " 92½	" 100,000	" 100,000	" 100	5 %	June & Dec.
do	1899 " 103	" 50,000	" 50,000	" 100	6 %	Do
do	1900 " 103	" 100,000	" 100,000	" 100	6 %	Mar. & Sept.
do	1902 " 103	" 100,000	" 100,000	" 100	6 %	Do
do	1903 " 103	" 100,000	" 100,000	" 100	6 %	June & Dec.
Perak Sugar Cultivation Co., Debentures	1902 " 101	" 200,000	" 200,000	" 100	7 %	April & Oct.
Shanghai Gas Co., Debentures	1897 " 92½	" 100,000	" 100,000	" 100	5 %	Do
do	1899 " 102	" 1,000,000	" 100,000	" 100	6 %	May & Nov.
do	1900 " 102	" 2,000,000	" 200,000	" 100	6 %	June & Dec.
Shanghai and Hongkew Wharf Co., Debentures	1902 " 100½	" 799,800	" 799,800	" 100	6 %	Do
Astor House Co., Debentures	1905 " 103	" 500,000	" 500,000	" 100	7 %	Do
British Municipal Council, Hankow	1901 Sh. " 105	H'kow Tls 100,000	H'kow Tls 100,000	" 100	7 %	June & Dec.
Shanghai Club Debentures	1907 " 96	Tls. 170,000	Tls. 170,000	" 100	6 %	Do
Country Club Debentures	1907 " 97	" 139,000	" 139,000	" 100	6 %	Do
do	1907 " 97	" 92,000	" 92,000	" 100	6 %	Do
Lane Crawford & Co., Debentures	1907 " 100	" 110,000	" 110,000	" 100	7 %	Mar. & Sept
Anglo-French Land Debentures	1908 " 102½	" 250,000	" 250,000	" 100	6 %	June & Dec.

PHILIPPINE SHARE REPORT

JUNE 1ST, 1909

NAME	WHEN INCORPORATED	AUTHORIZED CAPITAL	ISSUE VALUE OF SHARE	NO. OF SHARES	SUBSCRIBED	PAID UP	RESERVE	WORKING %	DATE	LAST DIVIDEND	CLOSING QUOTATIONS
American Drug Store.....	1908	P 100,000	P1,000	100	40	P1,000	.....	P 5,000	Jan. 4, 1909..	.....	No Sellers.
*Banco Español Filipino.....	1851	3,000,000	200	15,000	8,439	200	P225,000	.....	.....	7% for year 1908....	190 nom.
Benguet Consolidated Mining Co....	1903	2,000,000	2	1,000,000	495,000	2	.....	38,000	Feb. 2, 1909..	.....	No Sellers.
Benguet Commercial Co., Ltd.....	1908	200,000	10	20,000	7,360	10	.....	.....	.....	7% for year 1907....	P10.
Cadwallader-Gibson Lumber Co....	1908	1,000,000	100	10,000	8,650	100	.....	.....	.....	.....	No Sellers.
*Camote-Clayton Mining Co.....	1909	400,000	10	40,000	20,000	10	.....	.....	.....	.....	P10.
*Compania Maritima.....	.....	1,018,000	200	5,090	5,090	200	.....	.....	.....	.....	P40 buyers
*El Varadero de Manila.....	.....	350,000	100	3,500	3,500	100	.....	.....	.....	.....	Sellers 70
Export & Import Lumber Co.....	.....	200,000	200	1,000	1,000	200	.....	.....	.....	.....	No sellers.
*Fabrica de Hielo de Manila.....	.....	350,000	50	7,000	7,000	50	.....	.....	.....	18% for year 1908....	P80 sellers
*Germinal Cigar Factory.....	.....	500,000	500	1,000	1,000	500	P285,000	.....	.....	6% for year 1908 and 6% on capital.....	750 sellers
H. E. Heacock Co.....	1909	100,000	100	1,000	800	100	.....	.....	.....	First year.....	No sellers.
*Headquarters Mining Co. (Inc.)...	1908	600,000	10	60,000	35,000	10	.....	.....	.....	.....	P10.
Insular Lumber Co.....	1907	2,000,000	200	10,000	9,000	200	.....	.....	.....	.....	No sellers.
Juan Seiboth Co., Ltd.....	1908	150,000	20	7,500	500	20	.....	.....	.....	First year.....	.....
*La Concha Button Factory.....	.....	75,000	100	750	750	100	.....	.....	.....	10% for year 1908....	P110 sellers.
Lambert, Springer Co.....	1908	200,000	1,000	200	80	1,000	.....	.....	.....	.....	No sellers.
Luzon Stevedoring Co.....	1909	250,000	25	10,000	4,200	25	.....	.....	.....	First year.....	.....
Newspaper Publishing Co.....	1907	400,000	100	4,000	3,740	100	.....	.....	Dec. 31, 1908.	1/2 of 1% interim for 1908.....	No sellers.
Walter E. Olsen Co., Inc.....	1909	500,000	100	5,000	2,033	100	.....	.....	.....	First year.....	No sellers.
Paracale Gold Dredging Co.....	1907	£10,000	£1	10,000	9,000	£1	.....	.....	.....	.....	£1.10 s.
Palomar Park Amusement Co.....	1908	300,000	.....	300,000	60,312	.50	.....	.....	.....	.....	P1.
Phil. Hemp Machine Co., Ltd.....	1907	1,000,000	100	10,000	8,500	100	.....	.....	.....	.....	P100
Philippine Publishing Co.....	1907	600,000	200	3,000	2,181	200	.....	.....	Mar. 1st, 1909	P3 a share for 1908..	P50
Port Banga Lumber Co.....	1908	100,000	1,000	100	934	93,400	None.	40,000	First Saturday in January..	None.....	No sellers.
The Philippine Gold Dredging Co...	1907	200,000	10	20,000	20,000	10	.....	.....	.....	.....	No sellers.
*Philippine Co., Ltd.....	.....	750,000	10	7,500	7,500	10	.....	.....	.....	.....	P5 buyers.
Philippine Rosin & Turpentine Co..	.....	150,000	1	150,000	70,000	1	.....	.....	.....	First year.....	.....
Philippine Exploration Co.....	1908	2,000,000	10	200,000	90,000	10	.....	.....	.....	.....	No sellers.
The Rosenstock Pub. Co.....	1908	75,000	10	7,500	6,000	10	.....	.....	.....	.....	No sellers.
*San Nicolas Iron Works.....	.....	300,000	500	600	600	500	.....	.....	.....	.....	P200 sellers.
San Mauricio Gold Mining Co.....	1908	4,000,000	200	20,000	.....	.....	.....	.....	.....	First year.....	No sellers.
Tarlac Railway Co.....	1906	150,000	100	1,500	1,500	100	.....	P9,674.75	June 30, 1908.	.....	No sellers.
Union Hemp Machine Co.....	1909	50,000	10	5,000	2,600	10	.....	.....	.....	.....	No sellers.
Zamboanga Cold Storage Co.....	1903	40,000	400	100	200	200	P 8,500	.....	May 1st, 1909.	20%.....	P120.

* John T. Macleod's share list

PHILIPPINE BONDS

	DATED	AUTHORIZED	ISSUED	OUTSTANDING	PAR VALUE	RATE OF INT.	WHEN PAYABLE	LAST QUOTATION
Philippine Friar Land Bonds.....	Feb. 1st, 1904	\$7,000,000	\$7,000,000	\$7,000,000	\$ 100	4%	Feb. 1, 1914	104 1/2
Public Works and Permanent Improvement Bonds.....	March 1, 1905	\$5,000,000	\$2,500,000	\$2,500,000	\$ 100	4%	March 1, 1915	104 1/2
Do.....	Feb. 1, 1906	.....	\$1,000,000	\$1,000,000	\$ 100	4%	Feb. 1, 1916	104 1/2
Manila Sewer and Water Works Improvement Bonds.....	June 1, 1905	\$4,000,000	\$1,000,000	\$1,000,000	\$ 100	4%	June 1, 1915	104 1/2
Do.....	Jan. 2, 1907	.....	\$2,000,000	\$2,000,000	\$ 100	4%	Jan. 2, 1917	104 1/2
* Philippine Railway First Mortgage Fourt per cent Thirty Year Sinking Fund Gold Bonds	July 1, 1907	\$15,000,000	\$5,736,000	\$5,736,000	\$1000	4%	July 1, 1937	97

*Payment of interest guaranteed until maturity or redemption by the Philippine Government.

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Cia. Gral. de Tabacos de Filipinas
Germinal Cigar Factory
Olsen & Co., Walter E.

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Eastern Eng. Co.
C. G. Young

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The Mitsui Bussan Kaisha
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Bohler Bros. & Co.
Brighten, Malcolm & Co., Ltd.
East Asiatic Dredging Co.
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Lambert-Springer Co.
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White, & Co. Inc., J. G.

CONTRACTORS, ELECTRICAL

Arnhold, Karberg & Co.
Shanghai Electric & Asbestos Co., Ltd.
Shewan Tones & Co.
Frank L. Strong
Siemens Shuckert
Siemens & Co.

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Atlantic, Gulf & Pacific Co.
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C. G. Young

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A. J. Morse & Son

DREDGERS

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Arnhold, Karberg & Co.
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Jardine, Matheson & Co.
Babcock & Wilcox (D. W. Bell)
Belliss & Morcom (D. W. Bell)
General Electric Co.
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Shewan, Tones & Co.
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The Philippine Journal of Science

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Insular Lumber Co.
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Shanghai Dock and Engineering Co., Ltd.
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